MIAMI-DADE COUNTY
DEPARTMENT OF PERMITTING, ENVIRONMENT AND REGULATORY AFFAIRS (PERA)
BOARD AND CODE ADMINISTRATION DIVISION

MIAMI–DADE COUNTY, FLORIDA
PRODUCT CONTROL SECTION
11805 SW 26 Street, Room 208
Miami, Florida 33175–2474
T (786) 315–2590 F (786) 315–2599
www.miamidade.gov/development/

NOTICE OF ACCEPTANCE (NOA)

Kawneer Company, Inc.
555 Guthridge Court
Norcross, GA 30092

SCOPE:

This NOA is being issued under the applicable rules and regulations governing the use of construction materials. The documentation submitted has been reviewed and accepted by Miami–Dade County PERA–Product Control Section to be used in Miami–Dade County and other areas where allowed by the Authority Having Jurisdiction (AHJ).

This NOA shall not be valid after the expiration date stated below. The Miami–Dade County Product Control Section (In Miami–Dade County) and/ or the AHJ (in areas other than Miami–Dade County) reserve the right to have this product or material tested for quality assurance purposes. If this product or material fails to perform in the accepted manner, the manufacturer will incur the expense of such testing and the AHJ may immediately revoke, modify, or suspend the use of such product or material within their jurisdiction. PERA reserves the right to revoke this acceptance, if it is determined by Miami–Dade County Product Control Section that this product or material fails to meet the requirements of the applicable building code.

This product is approved as described herein, and has been designed to comply with the Florida Building Code, including the High Velocity Hurricane Zone.

DESCRIPTION: Series "$7^{13}/_{16}$" deep 1600 System 2" Dry Glazed Aluminum Curtain Wall – S.M.I.

APPROVAL DOCUMENT: Drawing No. **1792**, titled Series "1600 System 2 Curtain Wall (S.M.I.)", sheets 1 through 16 of 16, dated 06/05/12, prepared by W.W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E., bearing the Miami–Dade County Product Control Section revision stamp with the Notice of Acceptance number and expiration date by the Miami–Dade County Product Control Section.

MISSILE IMPACT RATING: Small Missile Impact Resistant

LABELING: Each unit shall bear a permanent label with the manufacturer's name or logo, city, state, model/series, and following statement: "Miami–Dade County Product Control Approved", unless otherwise noted herein.

RENEWAL of this NOA shall be considered after a renewal application has been filed and there has been no change in the applicable building code negatively affecting the performance of this product.

TERMINATION of this NOA will occur after the expiration date or if there has been a revision or change in the materials, use, and/or manufacture of the product or process. Misuse of this NOA as an endorsement of any product, for sales, advertising or any other purposes shall automatically terminate this NOA. Failure to comply with any section of this NOA shall be cause for termination and removal of NOA.

ADVERTISEMENT: The NOA number preceded by the words Miami–Dade County, Florida, and followed by the expiration date may be displayed in advertising literature. If any portion of the NOA is displayed, then it shall be done in its entirety.

INSPECTION: A copy of this entire NOA shall be provided to the user by the manufacturer or its distributors and shall be available for inspection at the job site at the request of the Building Official.

This NOA **revises NOA No. 08–1104.01** and consists of this page 1 and evidence pages E–1, E–2 and E–3, as well as approval document mentioned above.

The submitted documentation was reviewed by **Jaime D. Gascon, P. E.**

MIAMI-DADE COUNTY APPROVED

J. Gascon
8/28/12

NOA No. 12–0622.08
Expiration Date: June 09, 2015
Approval Date: September 06, 2012

Kawneer Company, Inc.

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

A. DRAWINGS

1. Manufacturer's die drawings and sections.
   (Submitted under previous NOA No. 04–0908.06)
2. Drawing No. **1792**, titled Series "1600 System 2 Curtain Wall (S.M.I.)", sheets 1 through 16 of 16, dated 06/05/12, prepared by W.W. Schaefer Engineering & Consulting, P. A., signed and sealed by Warren W. Schaefer, P. E.

B. TESTS

1. Test reports on: 1) Air Infiltration Test, per FBC, TAS 202–94
   2) Uniform Static Air Pressure Test, Loading per FBC TAS 202–94
   3) Water Resistance Test, per FBC, TAS 202–94
   4) Small Missile Impact Test per FBC, TAS 201–94
   5) Large Missile Impact Test per FBC, TAS 201–94
   6) Cyclic Wind Pressure Loading per FBC, TAS 203–94
   7) Forced Entry Test, per FBC 2411 3.2.1, TAS 202–94

   along with marked–up drawings and installation diagram of a multiple span Kawneer 1600 System 2 – $2^{1}/_{2}$" x $7^{13}/_{16}$" deep, pressure plate aluminum curtain wall system, 202" wide x 341" high x 64" return, specimen no. **1,** Elevation 1 & 2, Glass types: **A, B, C, D & E**, marked–up by Hurricane Test Laboratory, Inc. Test Report No. **HTL–0049–0512–03**, dated 05/13/03, signed and sealed by Vinu J. Abraham, P. E.
   (Submitted under previous NOA No. 04–0908.06)
2. Test reports on: 1) Uniform Static Air Pressure Test, Loading per FBC, TAS 202–94
   along with marked–up drawings and installation diagram of a multiple span Kawneer 1600 System2 – $2^{1}/_{2}$" x $7^{13}/_{16}$" deep, pressure plate aluminum curtain wall system, $182^{1}/_{2}$" wide x 167" high, specimen no. **1,** Elevation 3A, Glass types: **A & B**, marked–up by Hurricane Test Laboratory, Inc. Test Report No. **HTL–0049–0423–03**, dated 4/22–10/1–03, signed and sealed by Vinu J. Abraham, P. E.
   (Submitted under previous NOA No. 04–0908.06)
3. Test reports on: 1) Small Missile Impact Test per FBC, TAS 201–94
   2) Large Missile Impact Test per FBC, TAS 201–94
   3) Cyclic Wind Pressure Loading per FBC, TAS 203–94

   along with marked–up drawings and installation diagram of a multiple span Kawneer 1600 System2 – $2^{1}/_{2}$" x $7^{13}/_{16}$" deep, pressure plate aluminum curtain wall system, $182^{1}/_{2}$" wide x 167" high, specimens no. **1 and** no. **2,** Elevations 3A and 3B respectively, Glass types: **A & B** and **A & D** respectively, marked–up by Hurricane Test Laboratory, Inc. Test Report No. **HTL–0049–1003–03**, dated 4/22–10/3–03, signed and sealed by Vinu J. Abraham, P. E.
   (Submitted under previous NOA No. 04–0908.06)

Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12–0622.08
Expiration Date: June 09, 2015
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C. CALCULATIONS

1. Anchor verification calculations and structural analysis, complying with **FBC–2010**, prepared by W.W. Schaefer Engineering & Consulting, P. A., dated 04/17/12, signed and sealed by Warren W. Schaefer, P. E.
2. **Glazing complies with ASTM E1300–98/ 04**

D. QUALITY ASSURANCE

1. Miami–Dade Department of Permitting, Environment, and Regulatory Affairs (PERA).

E. MATERIAL CERTIFICATIONS

1. Notice of Acceptance No. **11–0624.01** issued to **E.I. DuPont DeNemours & Co., Inc.** for their **"DuPont Butacite® PVB Interlayer"** dated 09/08/11, expiring on 12/11/16.
2. Notice of Acceptance No. **11–0325.05** issued to **Solutia, Inc.** for their **"Saflex and Vanceva clear and color interlayers"** dated 05/05/11, expiring on 05/21/16.
3. Trelleborg Part No. **BRM–270400** EPDM exterior glazing gasket complying with ASTM C864 Option II exceptions, ASTM D412 1509 PSI; D395B 22 HRS @ 70°F 16%; ASTM D 2240 Type A 70; ASTM D 573 70 HRS @ 100°C +2.0%, –9.2% and + 6 pts.; ASTM D 624–Die–C 101.7 ppi; ASTM D 1149 100 HRS/ 100pphm @ 40°C 20% No Cracks; ASTM D746 max. –42.8°C; ASTM D 926 No Migration Stain and ASTM C 1166 No Limit.
4. Test Reports No.'s **ARDL–PN–74740–A** and **ARDL–PN–7474–BB**, issued and prepared by Akron Rubber Development Laboratory, Inc., dated 08/21/02, for TREMCO EPDM exterior glazing gasket complying with ASTM C864 Option II exceptions, ASTM D412 1871 PSI, D395B 22 HRS 100°C 14.4%; ASTM D 573 70 HRS @ 100°C –5.0%, –2.2% and + 4 pts.; ASTM D 624–Die–C 162.2 ppi; ASTM D 1149 100 HRS/ 100pphm @ 40°C 20% No Cracks; ASTM D746 max. –58°C; ASTM D 926 No Migration Stain and ASTM C 1166 No Limit, dated 08/28/07 and 09/04/07, both signed by Jim Drummond.
   (Submitted under previous NOA No. 08–1104.01)

F. STATEMENTS

1. Statement letter of conformance and complying with **FBC–2010**, issued by W.W. Schaefer Engineering & Consulting, P. A., dated 06/19/12, signed and sealed by Warren W. Schaefer, P. E.
2. Statement letter of no financial interest, issued by W.W. Schaefer Engineering & Consulting, P. A., dated 02/28/12, signed and sealed by Warren W. Schaefer, P. E.

Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12–0622.08
Expiration Date: June 09, 2015
Approval Date: September 06, 2012

NOTICE OF ACCEPTANCE: EVIDENCE SUBMITTED

F. STATEMENTS (CONTINUED)

3. Notification of successor engineer per section 61g15–27.001 of the Florida Administrative Code, notifying original engineer that the successor engineer is assuming full professional and legal responsibility for all engineering documents pertaining to the curtain wall system 1600 System 1 & 2 of Kawneer Company, Inc., dated 02/29/12, signed and sealed by Warren W. Schaefer, P. E.
4. Laboratory compliance letter for Test Reports No.'s **HTL–0049–0423–03**, **HTL–0049–0512–03** and **HTL–0049–1003–03** all issued by Hurricane Test Laboratory, LLC, dated 06/21/04, all signed and sealed by Vinu J. Abraham, P. E.
   (Submitted under previous NOA No. 04–0908.06)
5. Proposal No. **01–0092**, acceptance letter dated 07/30/01, issued by this Office and signed by Jaime Gascon.
   (Submitted under previous NOA No. 04–0908.06)

G. OTHERS

i. Notice of Acceptance No. **08–1104.01**, issued to Kawneer Company, Inc., for their Series "**1600 System 2 Aluminum Curtain Wall – S.M.I.**", approved on 06/21/10 and expiring on 06/09/15.

Jaime D. Gascon, P. E.
Product Control Section Supervisor
NOA No. 12–0622.08
Expiration Date: June 09, 2015
Approval Date: September 06, 2012

GENERAL NOTES:

1. THESE CURTAIN WALL SYSTEMS HAVE BEEN TESTED, ANALYZED & APPROVED FOR DESIGN PRESSURES NOT TO EXCEED THOSE SHOWN IN THE "ALLOWABLE DESIGN PRESSURE TABLE(S)".
2. OPENINGS, BUCKING & BUCKING FASTENERS MUST BE PROPERLY DESIGNED & INSTALLED TO TRANSFER WIND LOADS TO THE STRUCTURE.
3. ALL HARDWARE & FASTENERS SHALL BE IN ACCORDANCE WITH THESE DRAWINGS & SHALL NOT VARY UNLESS SPECIFICALLY MENTIONED ON THE DRAWINGS. SPECIFIED ANCHOR EMBED TO BASE MATERIAL SHALL BE BEYOND WALL FINISH OR STUCCO.
4. THE DETAILS & SPECIFICATIONS SHOWN HEREIN REPRESENT THE PRODUCTS TESTED & PROPOSED FOR WATER, AIR, IMPACT, CYCLIC & UNIFORM STATIC AIR PRESSURE TESTING IN CONFORMANCE WITH THE FLORIDA BUILDING CODE PROTOCOLS TAS-201, 202 & 203 FOR SMALL MISSILE IMPACT CURTAIN WALL SYSTEMS.
5. THESE CURTAIN WALL SYSTEMS HAVE BEEN DESIGNED IN ACCORDANCE WITH AND MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE (FBC) INCLUDING HIGH VELOCITY HURRICANE ZONES (HVHZ).
6. THIS CURTAIN WALL SYSTEM MAY NOT BE INSTALLED AT ELEVATIONS BELOW 30 FT. ABOVE GRADE WITHOUT AN APPROVED SHUTTER.
7. ALL ANCHORS SECURING CURTAIN WALL FRAME TO PRESSURE TREATED BUCKS OR WOOD FRAMING SHALL BE CAPABLE OF RESISTING CORROSION CAUSED BY THE PRESSURE TREATING CHEMICALS IN THE WOOD.
8. DETERMINE THE POSITIVE & NEGATIVE DESIGN LOADS TO USE WHEN REFERENCING THESE DOCUMENTS IN ACCORDANCE WITH THE GOVERNING CODE AND GOVERNING WIND VELOCITY. FOR WIND LOAD CALCULATIONS IN ACCORDANCE WITH THE FLORIDA BUILDING CODE, A DIRECTIONALITY FACTOR OF KD = 0.85 MAY BE APPLIED WHEN USED IN CONJUNCTION WITH LOAD COMBINATIONS SPECIFIED IN SECTION 2.0 OF THE ASCE 7 STANDARD.
9. NO INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE CERTIFICATION OF THIS PRODUCT. WIND LOAD DURATION FACTOR CD = 1.6 WAS USED FOR WOOD SCREW ANALYSIS ONLY.
10. MATERIALS, INCLUDING BUT NOT LIMITED TO STEEL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF FLORIDA BUILDING CODE CHAPTER 20.

CORNER CONSTRUCTION:

STANDARD FRAMING AT TOP & BOTTOM HORIZONTAL MEMBERS: VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL MEMBERS VIA A SHEAR BLOCK (ITEM #12). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBER WITH 2 NO. 12 X 1 7/8" FHTF SCREWS. THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 7/8" PHTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

STANDARD FRAMING AT INTERMEDIATE HORIZONTAL MEMBERS: HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBERS VIA A SHEAR BLOCK (ITEM #13). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL FRAME MEMBER WITH 2 NO. 12 X 1 7/8" FHTF SCREWS. THE INTERMEDIATE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 7/8" FHTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

TYPICAL 90 DEGREE CORNER FRAMING: VERTICAL CORNER MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE MITER CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL MEMBERS VIA A SHEAR BLOCK (ITEM #14). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL CORNER FRAME MEMBERS WITH 3 NO. 12 X 7/16" PHTF SCREWS. THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 1/2" FHTF SCREWS. CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

90 DEGREE CORNER FRAMING AT SPLICE JOINT LOCATIONS: VERTICAL CORNER MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE MITER CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL MEMBERS VIA A SHEAR BLOCK (ITEM #16). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL CORNER FRAME MEMBERS WITH 2 NO. 12 X 7/16" PHTF SCREWS (2 PER SHEAR BLOCK). THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 1/2" FHTF SCREWS (2 PER SHEAR BLOCK). CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

STANDARD FRAMING AT SPLICE JOINT LOCATIONS: VERTICAL MEMBERS RUN THROUGH WHILE THE HORIZONTAL MEMBERS ARE SQUARE CUT, BUTTED AND MECHANICALLY FASTENED TO THE VERTICAL MEMBERS VIA A SHEAR BLOCK (ITEM #15). THE SHEAR BLOCK IS MECHANICALLY FASTENED TO THE VERTICAL CORNER FRAME MEMBERS WITH 2 NO. 12 X 1 7/8" PHTF SCREWS (2 PER SHEAR BLOCK). THE HORIZONTAL FRAME MEMBERS ARE ATTACHED TO THE SHEAR BLOCK WITH 2 NO. 12 X 1/2" FHTF SCREWS (2 PER SHEAR BLOCK). CORNERS ARE SEALED WITH DOW 795 SILICONE SEALANT.

MAXIMUM ALLOWABLE FRAMING MEMBER DEFLECTION
L/180 (SPAN OF MEMBER DIVIDED BY 180)
NOTE: THIS IS THE MAXIMUM ALLOWABLE DEFLECTION AS RESTRICTED BY THE BUILDING CODE. IF JOB CONDITIONS REQUIRE LESS DEFLECTION, THE JOB CONDITIONS SHALL CONTROL.

ANCHOR REQUIREMENTS TABLE
(SINGLE & MULTI-SPAN REINFORCED CURTAIN WALLS)

OPENING TYPE (SUBSTRATE)	FRAME/CLIP TO OPENING FASTENER TYPE	MINIMUM EMBED	MINIMUM EDGE DIST.
F-PERIMETER ANCHOR SCREWS			
MIN. 16 GA. 50 KSI METAL STUD	1/4-14 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 2X6 WOOD FRAME OR BUCK (MIN. GR. 2 & G=0.55)	1/4" DIA. GR. 5 COARSE THREAD SCREW	1 1/4"	3/4"
MIN. 1/8" THK A36 STEEL	1/4-14 OR 20 GR. 5 SELF TAP/DRILL SCREW	FULL	1/2"
MIN. 3000 PSI CONCRETE	(1) 3/8" CONCRETE SCREW ANCHOR	2 1/2"	2 1/2"
MIN. C-90 CMU FILLED WITH MIN. 2500 PSI CONCRETE	(1) 3/8" CONCRETE SCREW ANCHOR	2 1/2"	2 1/2"
T & F-ANCHOR SCREWS/BOLTS (VERTICAL MEMBER ENDS)			
MIN. 1/8" THK A36 STEEL	1/4"-120 OR 14 430 SS HCMS OR GR. 5 CS THREAD FORMING SCREW	FULL	3/4"
	1/4" GR. 5 CS OR 410 SS BOLT WITH LOCK WASHER & NUT	FULL	3/4"
	1/2"-13 300 SS HCMS OR GR. 5 CS THREAD FORMING SCREW	FULL	1"
	1/2" GR. 5 CS OR 410 SS BOLT WITH LOCK WASHER & NUT	FULL	1"
(2) MIN. 3000 PSI CONCRETE	(1) 1/2" CONCRETE SCREW ANCHOR	3 1/2"	SEE DETAILS

(1) 1/2" CONCRETE SCREWS SHALL BE SIMPSON STRONG-TIE TITAN HD SCREW ANCHOR (GALVANIZED STEEL).
(2) MINIMUM CONCRETE SLAB THICKNESS FOR PLACEMENT OF "T" & "F" ANCHORS IS 5 1/2".

MAXIMUM ALLOWABLE DESIGN PRESSURE (MULTI & SINGLE SPAN CURTAIN WALL)
+60/-60 PSF
1. THE ABOVE STATED PRESSURES ARE THE MAXIMUM ALLOWED ON ANY JOB REGARDLESS OF WHAT THE JOB SPECIFIC DESIGN RESULTS MAY SHOW. INCREASE OF ALLOWABLE DESIGN PRESSURE ON ANY JOB IS CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL. SEE "MULTI-SPAN OR SINGLE SPAN WALL NOTES" ON SHEETS 2 & 4 FOR ACTUAL JOB DESIGN CONDITIONS.

ANCHOR LEGEND	
ANCHOR SYMBOL	ANCHOR DESCRIPTION
⊞	STANDARD WIND LOAD ANCHOR
⊕	CORNER WIND LOAD ANCHOR
⚠	STANDARD DEAD LOAD ANCHOR
◈	CORNER DEAD LOAD ANCHOR
■	STANDARD T-ANCHOR
◕	CORNER T-ANCHOR
▲	F-ANCHOR (FRAME MEMBER ENDS)
SEE SHEETS 5-9 FOR DETAILS OF ANCHORS	

VERTICAL MEMBER REINFORCEMENT LEGEND
R1 = REINFORCEMENT PART NUMBER 29
R2 = REINFORCEMENT PART NUMBER 29 & 30
R3 = REINFORCEMENT PART NUMBER 31
SEE PARTS DRAWINGS & PARTS LIST FOR APPLICABLE REINFORCEMENT MEMBERS & THEIR DETAIL.

DRAWING USE INSTRUCTIONS:

1. DETERMINE IF THE WALL SYSTEM IS TO BE A MULTI-SPAN OR SINGLE SPAN CONDITION. IF MULTI-SPAN, ALL CONDITIONS SHOWN ON SHEETS 2 & 3 SHALL APPLY. IF A SINGLE SPAN, ALL CONDITIONS SHOWN ON SHEET 4 SHALL APPLY.
2. CONDITIONS MAY NOT BE MIXED BETWEEN WALL SYSTEM TYPES.
3. ALLOWABLE GLASS PRESSURE SHALL BE CONSIDERED WITH ALL WALL CONDITIONS AND SHALL CONTROL IF LESS THAN THOSE ALLOWABLE PRESSURES STATED FOR THE APPLICABLE FRAMING SYSTEM.

FREE SPANNING JAMB PERIMETER SEALANT NOTE (APPLICABLE TO ELEVATION ON ALL FREE SPANNING PERIMETER FRAME MEMBERS):
WHEN THERE IS NO CONTINUOUS JAMB SUPPORT, THE MINIMUM & MAXIMUM ALLOWABLE SPACE BETWEEN JAMB FRAME MEMBERS & THE OPENING SUBSTRATE OR FINISHES SHALL BE SPECIFIED BY THE ENGINEER OR ARCHITECT OF RECORD FOR EACH JOB BUT SHALL NOT BE LESS THAN 1/2" NOR GREATER THAN 1 3/8". WHEN CONSIDERING TYPE, DEPTH & JOINT SPAN OF SEALANT, THE ENGINEER/ARCHITECT SHALL TAKE INTO CONSIDERATION THE DEFLECTION OF THE JAMB MEMBER THAT WOULD OCCUR WHILE SUPPORTING THE JOB REQUIRED DESIGN WIND PRESSURE. ALSO TO BE CONSIDERED SHALL BE THE MATERIALS & SURFACES TO WHICH THE SEALANT WILL BE APPLIED.

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0622.08
Expiration Date 5/1/2015
By
Miami Dade Product Control

NOTE: INFORMATION ON THIS SHEET APPLIES TO ALL ELEVATIONS.

WARREN W. SCHAEFER ★ ENGINEER ★ No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=48 | DATE: 06/05/12

NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

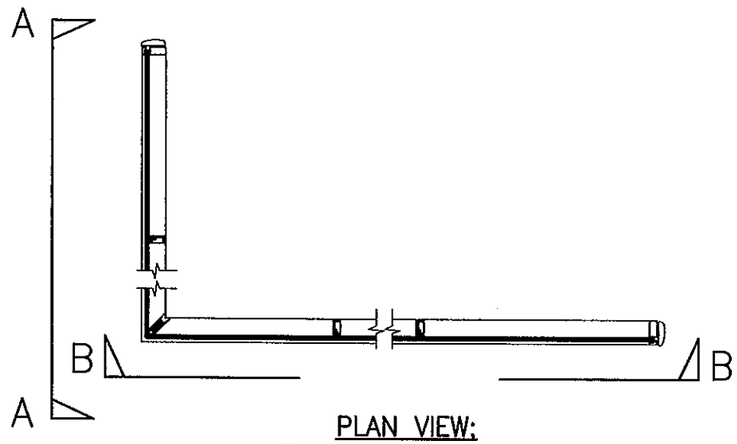
CERTIFICATION
JUN 19 2012
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1792 | REV.
SHEET NO. 1 OF 16

NOTES APPLICABLE TO MULTI-SPAN CURTAIN WALLS

1. WITH EACH APPLICABLE JOB, SHOP DRAWINGS SHALL BE PREPARED AND CERTIFIED BY A LICENSED ENGINEER EXPERIENCED WITH CURTAIN WALL DESIGN.
2. THE RESPONSIBLE ENGINEER SHALL DESIGN THE WALL SYSTEM SEPARATELY FOR EACH JOB & CONFIRM THAT ALL CONDITIONS STATED HERE-IN HAVE BEEN CONSIDERED AND ADHERED TO IN THAT DESIGN.
3. IN HIS/HER DESIGN, THE RESPONSIBLE ENGINEER SHALL VERIFY THE INTEGRITY OF ALL CONNECTIONS AND FRAMING MEMBERS & SHALL TAKE FULL RESPONSIBILITY FOR THE INTEGRITY OF THE SYSTEM DESIGN AS A WHOLE WHILE NOT ALLOWING THE CONDITIONS STATED HERE-IN TO BE EXCEEDED. ALLOWABLE SUPPORT REACTIONS AND VERTICAL FRAMING MEMBER BENDING MOMENTS SHALL NOT EXCEED THOSE STATED IN THE TABLES ON THIS SHEET, REGARDLESS OF JOB DESIGN.
4. THE CURTAIN WALL DESIGN ENGINEER SHALL CONSIDER ALL APPLICABLE REACTION LOADS IN HIS/HER DESIGN WHILE NOT ALLOWING THE REACTIONS RESULTING FROM WIND LOADS TO EXCEED THOSE SPECIFIED IN THE ANCHOR REACTION LOAD TABLE.
5. THE WORSE CASE OF THE CONDITIONS SPECIFIED IN THIS PRODUCT APPROVAL DRAWING AND THOSE DETERMINED BY THE INDIVIDUAL JOB ENGINEER'S ANALYSIS & DESIGN SHALL CONTROL AS APPLICABLE FOR THE ACTUAL JOB.
6. REGARDLESS OF JOB DETERMINED MEMBER STRESS & DEFLECTION CONDITIONS, THE FOLLOWING SHALL APPLY:
- A. REINFORCEMENT TYPE **R1** MUST BE PLACED BETWEEN SUPPORTS IN ALL SIDE JAMB & INTERMEDIATE VERTICAL FRAME MEMBERS THAT SPAN OVER 120" BETWEEN THEIR SUPPORTS (NOT REQUIRED IF THE UNSUPPORTED SPAN IS 120" OR LESS & THE JOB DESIGN ALLOWS FOR NO REINFORCEMENT).
- B. REINFORCEMENT TYPE R3 MUST BE PLACED BETWEEN SUPPORTS IN ALL CORNER VERTICAL FRAME MEMBERS THAT SPAN OVER 120" BETWEEN THEIR SUPPORTS (NOT REQUIRED IF THE UNSUPPORTED SPAN IS 120" OR LESS & THE JOB DESIGN ALLOWS FOR NO REINFORCEMENT).

7. REINFORCEMENT IS NOT REQUIRED TO BE CONTINUOUS TOP TO BOTTOM WITHIN THE VERTICAL FRAMING MEMBERS. REINFORCEMENT MAY BE NON-CONTINUOUS, AS DETERMINED FOR EACH JOB, PROVIDING IT MEETS THE MINIMUM GUIDELINES OF THIS DRAWING.
8. THIS ELEVATION SHOWS THE 1600 CURTAIN WALL SYSTEM 2 IN A MULTI-STORY APPLICATION. THE NUMBER OF FLOORS WITH WHICH THIS SYSTEM MAY BE USED RANGE FROM TWO(2) TO UNLIMITED WITH THE ONLY RESTRICTIONS BEING THE MAXIMUM SPAN BETWEEN FLOORS/SUPPORTS AND THE MAXIMUM D.L.O. SIZES SPECIFIED.
9. SPLICING OF VERTICAL FRAME MEMBERS MAY OCCUR BETWEEN SUPPORTS AS REQUIRED. LOCATION OF THOSE SPLICES SHALL BE WHERE A BENDING MOMENT OF NEAR ZERO(0) EXISTS IN THE MEMBER.
10. THE ELEVATION HERE-IN SHOWS F & T-ANCHORS AT THE BASE OF THE WALL ONLY. THESE ANCHORS MAY ALSO BE USED AT THE TOP OF A WALL IN LIEU OF THE WIND/DEAD LOAD ANCHORS SHOWN PROVIDING THE SPAN BETWEEN THE F OR T-ANCHOR AND THE BELOW WIND/DEAD LOAD ANCHORS DOES NOT EXCEED 167 3/4" & THEY ARE INSTALLED THE SAME AS SHOWN AT THE BASE.



PLAN VIEW:
MULTI-SPAN CURTAIN WALL
SCALE: 1/4" = 1'-0"
SEE SHEET 3 FOR WALL ELEVATIONS 'A-A" & "B-B"

(1) MAXIMUM ALLOWABLE BENDING MOMENTS IN VERTICAL FRAMING MEMBERS (FOR USE WITH MULTI-SPAN CURTAIN WALL)

(2) VERTICAL MEMBER	(3) MAXIMUM ALLOWABLE BENDING MOMENT (POS & NEG)
SIDE JAMB MEMBER WITH NO REINFORCEMENT	33816 IN-LB
SIDE JAMB MEMBER WITH REINFORCEMENT "R1"	33816 IN-LB
SIDE JAMB MEMBER WITH REINFORCEMENT "R2"	45801 IN-LB
INTERMEDIATE MEMBER WITH NO REINFORCEMENT	39525 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R1"	65028 IN-LB
INTERMEDIATE MEMBER WITH REINFORCEMENT "R2"	87938 IN-LB
CORNER MEMBER WITH NO REINFORCEMENT	(4) 42383 IN-LB
CORNER MEMBER WITH REINFORCEMENT "R3"	(4) 47823 IN-LB

NOTES:
(1) THE VALUES IS THIS TABLE ARE APPLICABLE TO THE JOB REQUIRED DESIGN OF THE MULTI-SPAN WALL SYSTEM & NEED NOT BE CONSIDERED WITH SINGLE SPAN WALLS. ALL SINGLE SPAN MEMBER & REINFORCEMENT CONDITIONS SHALL BE AS SPECIFICALLY SPECIFIED IN THE SINGLE SPAN ELEVATIONS.
(2) FOR DESCRIPTIONS OF REINFORCEMENTS, SEE THE "VERTICAL MEMBER REINFORCEMENT LEGEND".
(3) ALL VALUES ARE BASED ON THE WORSE CASE OF TESTED MOMENT AND ALLOWABLE MOMENT.
(4) MOMENT VALUE SHOWN FOR THE CORNER MULLION IS DUE TO THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR SINGLE SIDE LOAD (LOAD VECTOR 45 DEGREES TO MULLION ANGLE), IN THE DIRECTION OF THE SIDE LOAD, THE ALLOWABLE MOMENT SHALL NOT EXCEED 29970 IN-LB WHEN NON-REINFORCED NOR 33816 IN-LB. WHEN REINFORCED.

ANCHOR REACTION LOAD CAPACITY (MULTI-SPAN CURTAIN WALL)

ANCHOR SYMBOL	ANCHOR DESCRIPTION	(1) MAXIMUM ALLOWABLE REACTION LOAD
⊞	SIDE JAMB WIND LOAD ANCHOR	2297 LBS
⚠	SIDE JAMB DEAD LOAD ANCHOR	2297 LBS
⊞	INTERMEDIATE WIND LOAD ANCHOR	4417 LBS
⊕	CORNER WIND LOAD ANCHOR	(2) 3248 LBS
⚠	INTERMEDIATE DEAD LOAD ANCHOR	4417 LBS
⊕	CORNER DEAD LOAD ANCHOR	(2) 3248 LBS
■	STANDARD T-ANCHOR	2096 LBS
◒	CORNER T-ANCHOR	(2) 677 LBS
⚠	F-ANCHOR (FRAME MEMBER ENDS)	1092 LBS

(1) MAXIMUM ALLOWABLE REACTION LOADS SHOWN CONSIDER REACTIONS FROM WIND LOADS ONLY & APPLY TO BOTH POSITIVE & NEGATIVE WIND DIRECTIONS. IN ADDITION TO WIND LOADS, THE CURTAIN WALL DESIGN ENGINEER OF RECORD FOR EACH PROJECT SHALL ALSO CONSIDER OTHER APPLICABLE LOADS SUCH AS, BUT POSSIBLY NOT LIMITED TO, DEAD LOADS FROM THE CURTAIN WALL WEIGHT.
(2) REACTION LOAD SHOWN FOR THE CORNER ANCHORS IS THE RESULTANT LOAD IN THE PLANE OF THE MULLION (LOAD FROM BOTH SIDES COMBINED INTO A RESULTANT). FOR EITHER SIDE LOAD, THE ALLOWABLE REACTION LOAD SHALL NOT EXCEED 2297 LB. FROM EITHER SIDE FOR THE WIND & DEAD LOAD ANCHORS NOR 479 LBS FROM EITHER SIDE FOR THE T-ANCHOR.

PRODUCT REVISED
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NOTE: INFORMATION ON THIS SHEET APPLIES TO ELEVATIONS ON SHEET 3 ONLY.

WARREN W. SCHAEFER ★ LICENSE ★ No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

JUN 19 2012

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

NO.	REVISION DESCRIPTION	BY	DATE

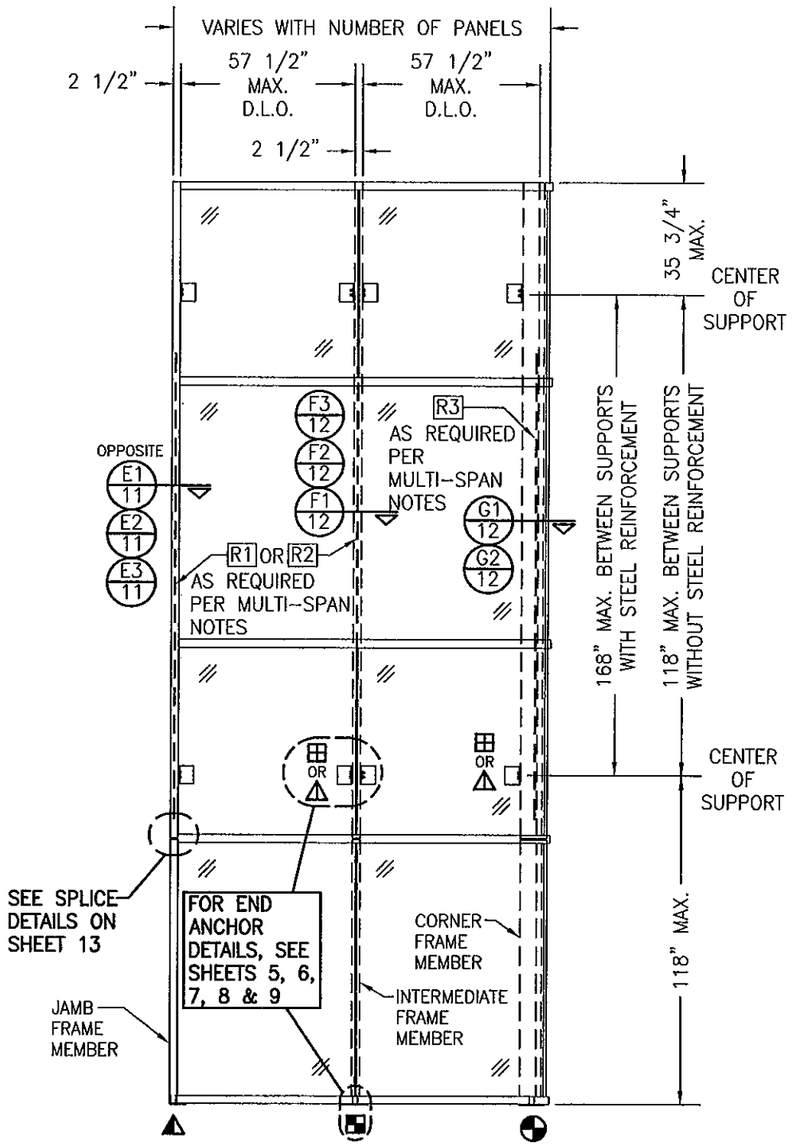
DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=48 | DATE: 06/05/12

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)
CERTIFICATION

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

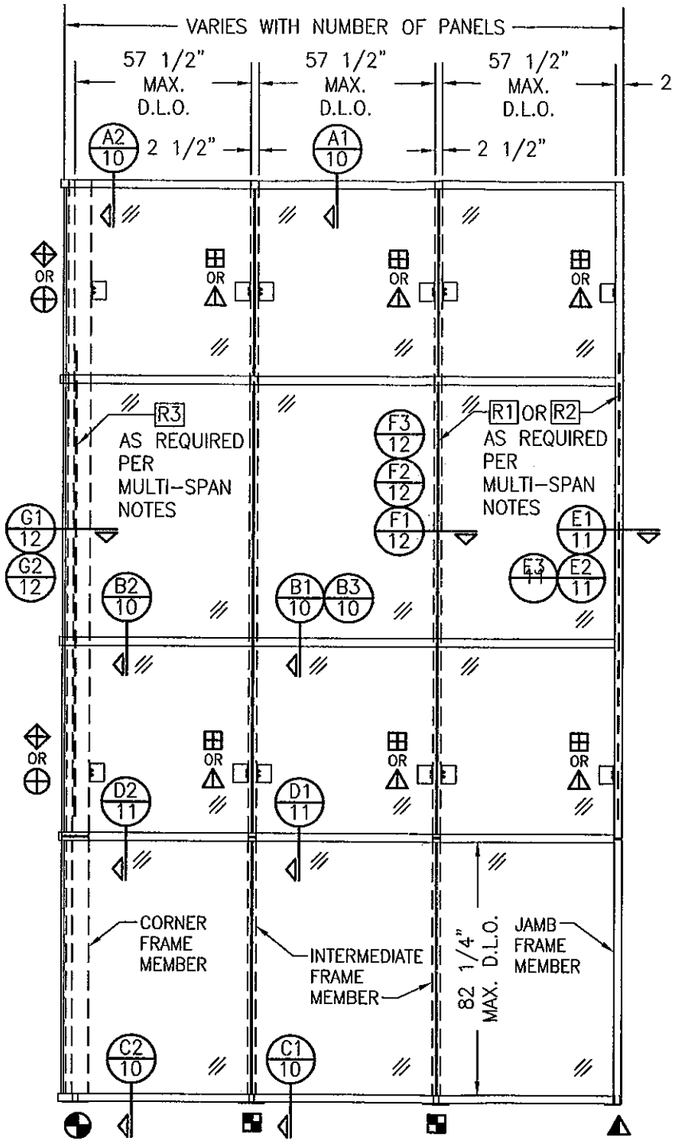
DRAWING NO. 1792 | REV.
SHEET NO. 2 OF 16



EXTERIOR ELEVATION VIEW "A–A";
MULTI–SPAN CURTAIN WALL

SCALE: 1/4" = 1'–0"

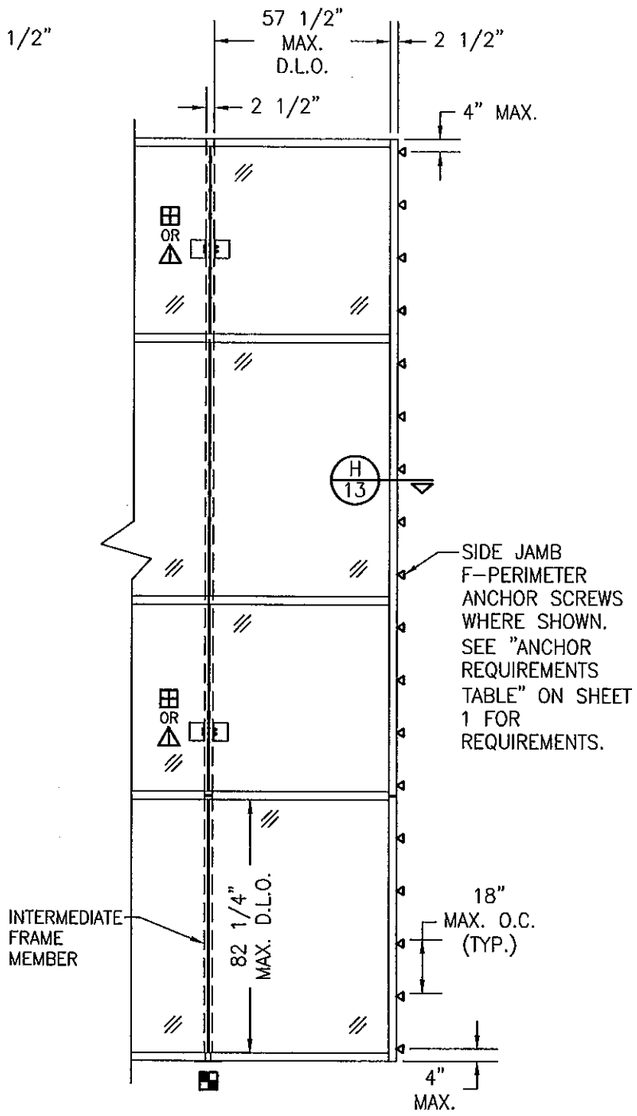
SPANNING SIDE JAMB SHOWN.
CONTINUOUSLY SUPPORTED SIDE JAMB ALSO APPLIES PER ALTERNATE SIDE JAMB CONDITION ELEVATION ON THIS SHEET.



EXTERIOR ELEVATION VIEW "B–B";
MULTI–SPAN CURTAIN WALL

SCALE: 1/4" = 1'–0"

SPANNING SIDE JAMB SHOWN.
CONTINUOUSLY SUPPORTED SIDE JAMB ALSO APPLIES PER ALTERNATE SIDE JAMB CONDITION ELEVATION ON THIS SHEET.



ALTERNATE MULTI–SPAN SIDE JAMB CONDITION: CONTINUOUSLY SUPPORTED

SCALE: 1/4" = 1'–0"

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DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
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770–449–5555

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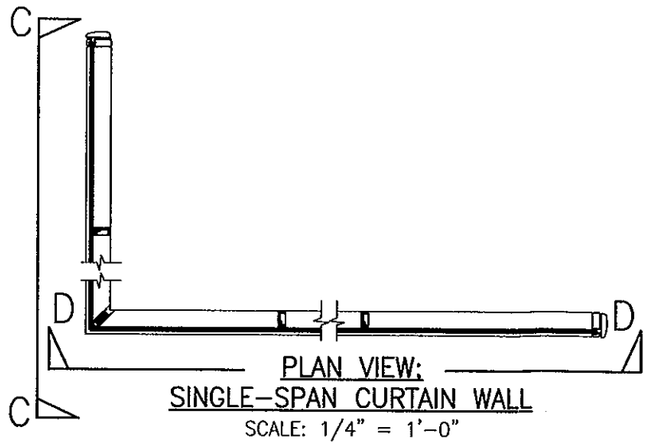
PHONE: 561–744–3424

DRAWING NO. 1792 | REV.

SHEET NO. 3 OF 16

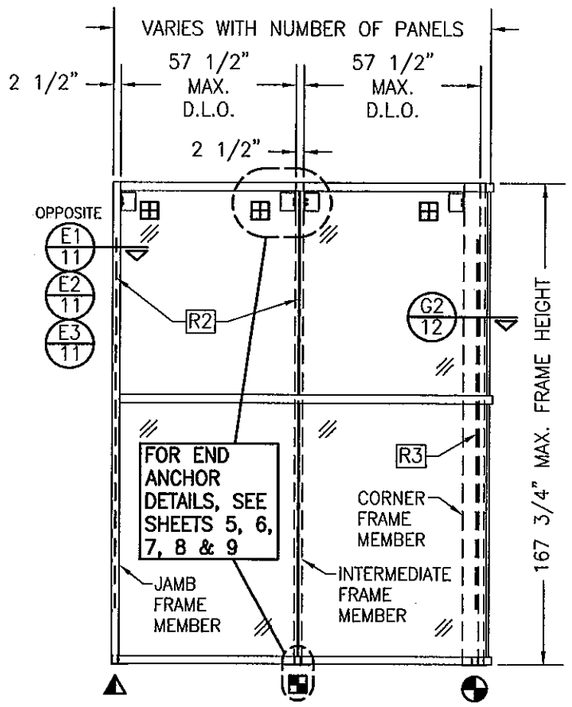
NOTES APPLICABLE TO SINGLE-SPAN CURTAIN WALLS

1. ALL SPANNING VERTICAL MEMBERS IN A SINGLE SPAN CURTAIN WALL SHALL BE REINFORCED WITH REINFORCEMENT R2 IN SIDE JAMB & INTERMEDIATE MEMBERS & WITH R3 IN CORNER FRAME MEMBERS. REINFORCEMENT SHALL RUN CONTINUOUS IN ALL SPANNING VERTICAL MEMBERS & EXTEND TO WITHIN 18" OF THE ENDS.
2. SIDE JAMB MEMBERS DO NOT REQUIRE REINFORCEMENT WHEN THEY ARE SUPPORTED WITH A CONTINUOUS SIDE JAMB F-PERIMETER ANCHOR.
3. THERE IS NO LIMIT TO THE NUMBER OF SECTIONS HORIZONTALLY PROVIDING THE OPENING IS DESIGNED TO SUPPORT THE LOADS TRANSFERRED FROM THE WALL SYSTEM.
4. THE ELEVATION HERE-IN SHOWS F & T--ANCHORS AT THE BASE OF THE WALL ONLY. THESE ANCHORS MAY ALSO BE USED AT THE TOP OF A WALL IN LIEU OF THE WIND LOAD ANCHORS SHOWN PROVIDING THEY ARE INSTALLED THE SAME AS SHOWN AT THE BASE.
5. SIDE JAMB FRAME MEMBERS MAY BE SUPPORTED EITHER BY A CONTINUOUS SIDE JAMB FRAME F-PERIMETER ANCHOR OR BY END ANCHORS AS SHOWN.
6. ALL CONDITIONS SHOWN IN THESE ELEVATIONS SHALL APPLY TO ALL JOBS. CONDITIONS DIFFERING FROM THOSE SHOWN ARE NOT PART OF THIS PRODUCTS APPROVAL AND ARE CONSIDERED OUTSIDE THE SCOPE OF THIS APPROVAL.

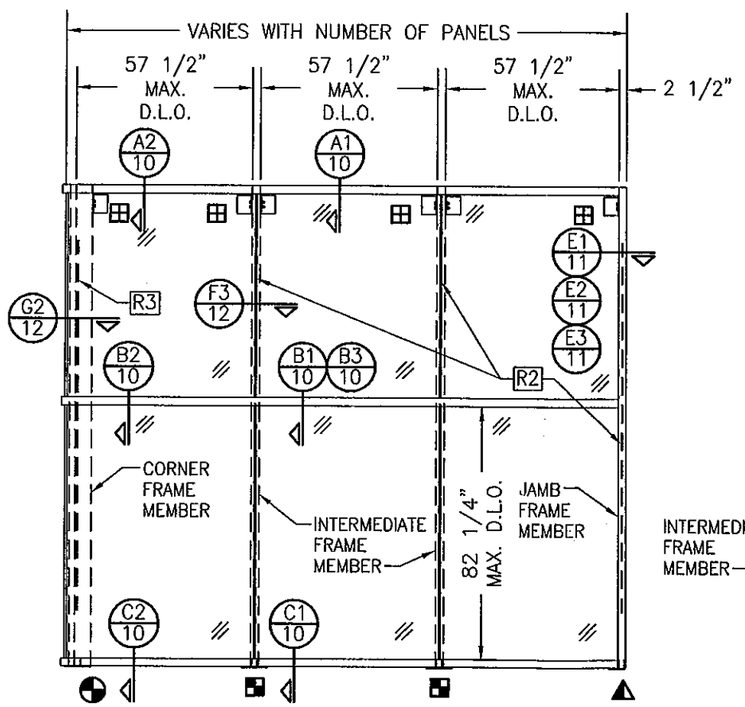


PLAN VIEW:
SINGLE-SPAN CURTAIN WALL
SCALE: 1/4" = 1'-0"

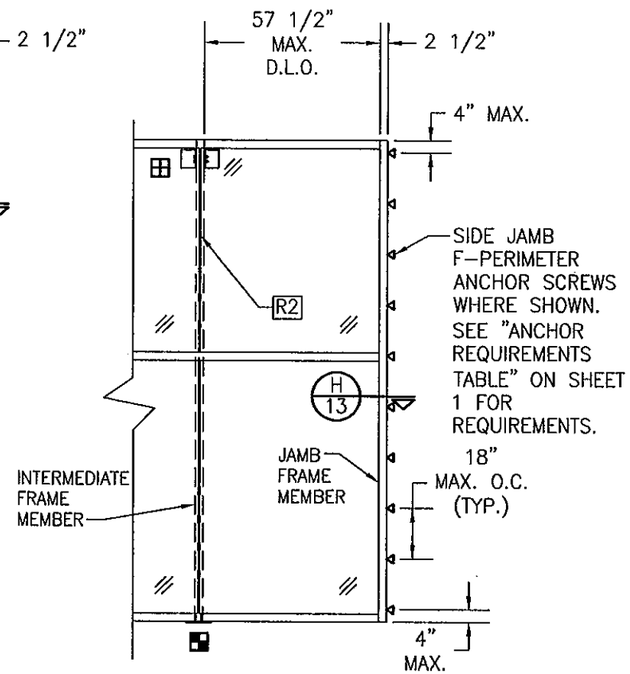
NOTE: INFORMATION ON THIS SHEET APPLIES TO ELEVATIONS ON THIS SHEET ONLY.



EXTERIOR ELEVATION VIEW "C-C":
SINGLE SPAN CURTAIN WALL
SCALE: 1/4" = 1'-0"
SPANNING SIDE JAMB SHOWN. CONTINUOUSLY SUPPORTED SIDE JAMB ALSO APPLIES PER ALTERNATE SIDE JAMB CONDITION ELEVATION ON THIS SHEET.



EXTERIOR ELEVATION VIEW "D-D":
SINGLE SPAN CURTAIN WALL
SCALE: 1/4" = 1'-0"
SPANNING SIDE JAMB SHOWN. CONTINUOUSLY SUPPORTED SIDE JAMB ALSO APPLIES PER ALTERNATE SIDE JAMB CONDITION ELEVATION ON THIS SHEET.



ALTERNATE SINGLE SPAN SIDE JAMB CONDITION: CONTINUOUSLY SUPPORTED
SCALE: 1/4" = 1'-0"

PRODUCT REVISED
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Acceptance No 12-0622.08
Expiration Date 06/09/2015
By
Miami Dade Product Co

WARREN W. SCHAEFER LICENSE No. 44135 STATE OF FLORIDA PROFESSIONAL ENGINEER

JUN 19 2012

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

CERTIFICATION

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MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
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770-449-5555

CONSULTANTS
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7480 150TH COURT NORTH
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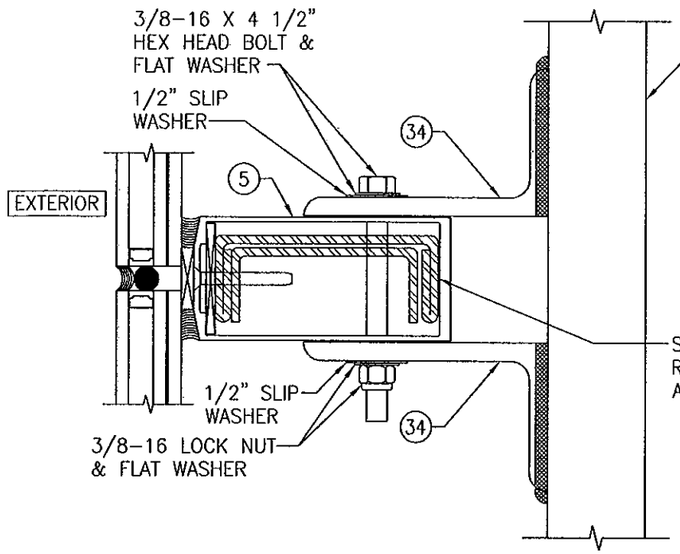
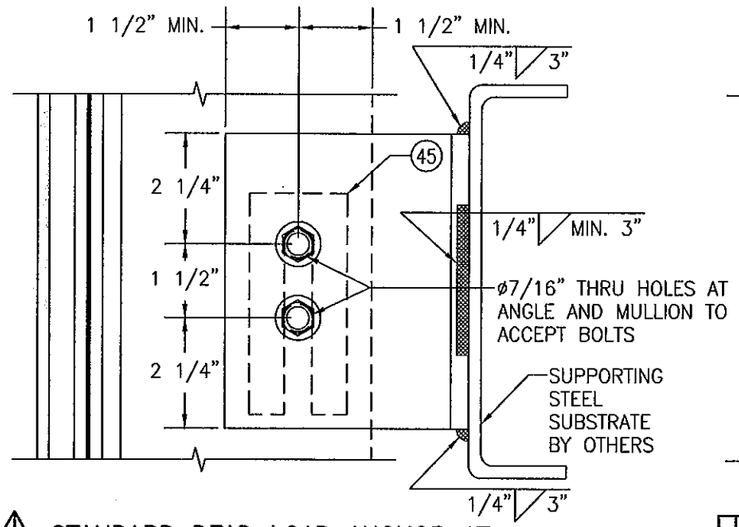
PHONE: 561-744-3424

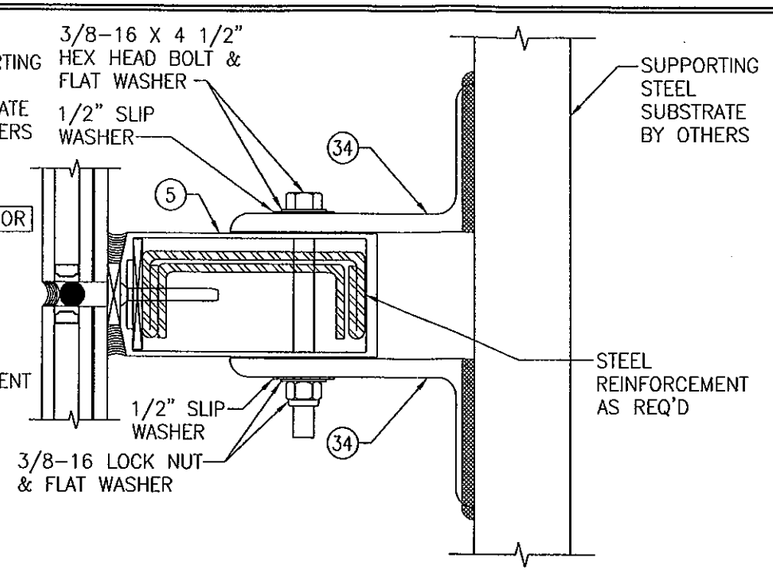
DRAWING NO. 1792
REV.
SHEET NO. 4 OF 16

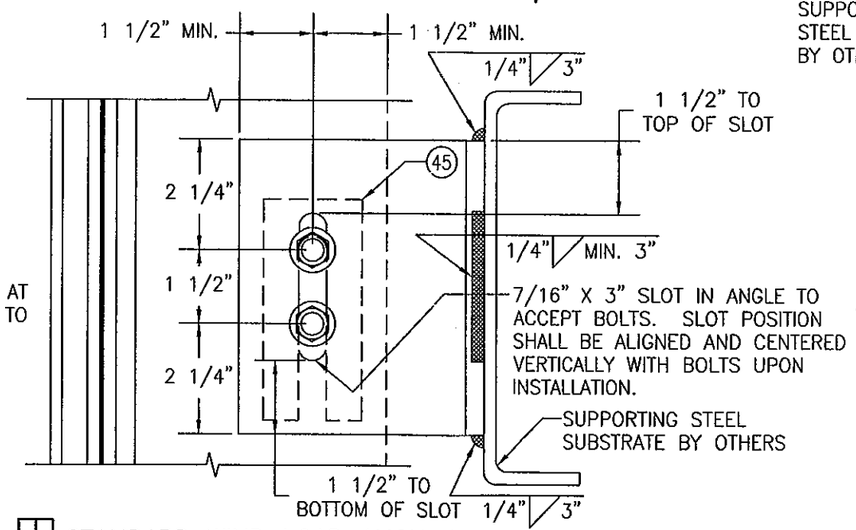




⚠ STANDARD DEAD LOAD ANCHOR AT INTERMEDIATE MEMBERS

SCALE: 1/3 FULL

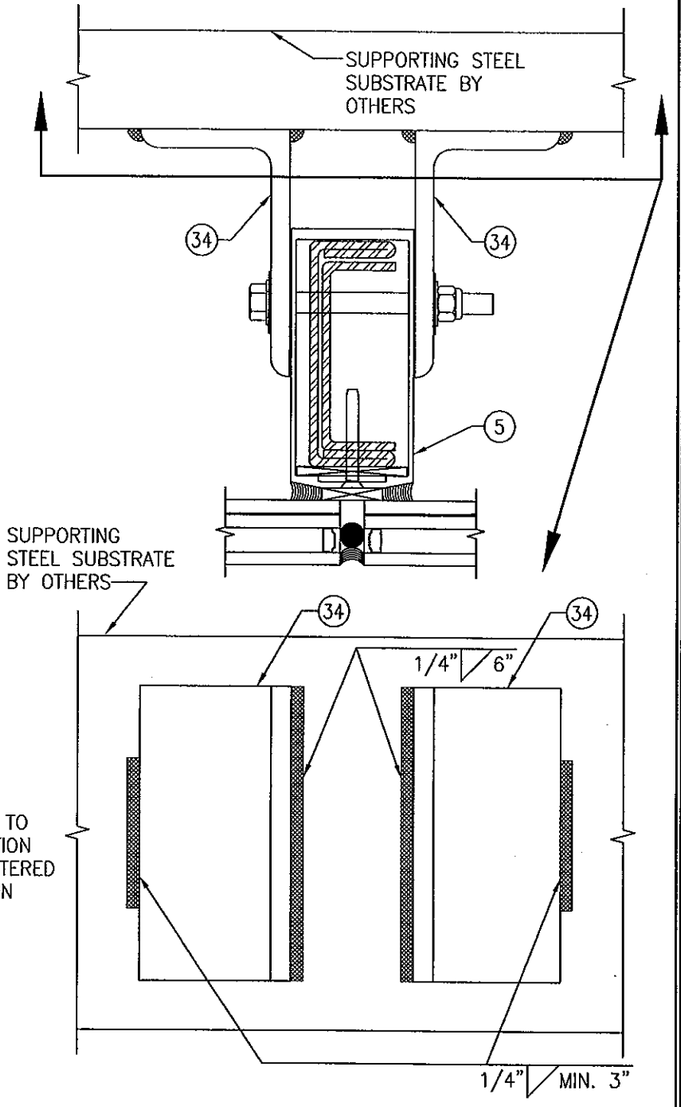




⊞ STANDARD WIND LOAD ANCHOR AT INTERMEDIATE MEMBERS

SCALE: 1/3 FULL

NOTE: ALL 3/8" BOLTS CONNECTING ANGLES TO MULLIONS SHALL BE GRADE 5 STEEL OR 300 SERIES STAINLESS STEEL.



ALTERNATE WELD DETAIL FOR WIND & DEAD LOAD ANCHORS AT INTERMEDIATE MEMBERS

SCALE: 1/3 FULL

PRODUCT REVISED
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DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
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CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
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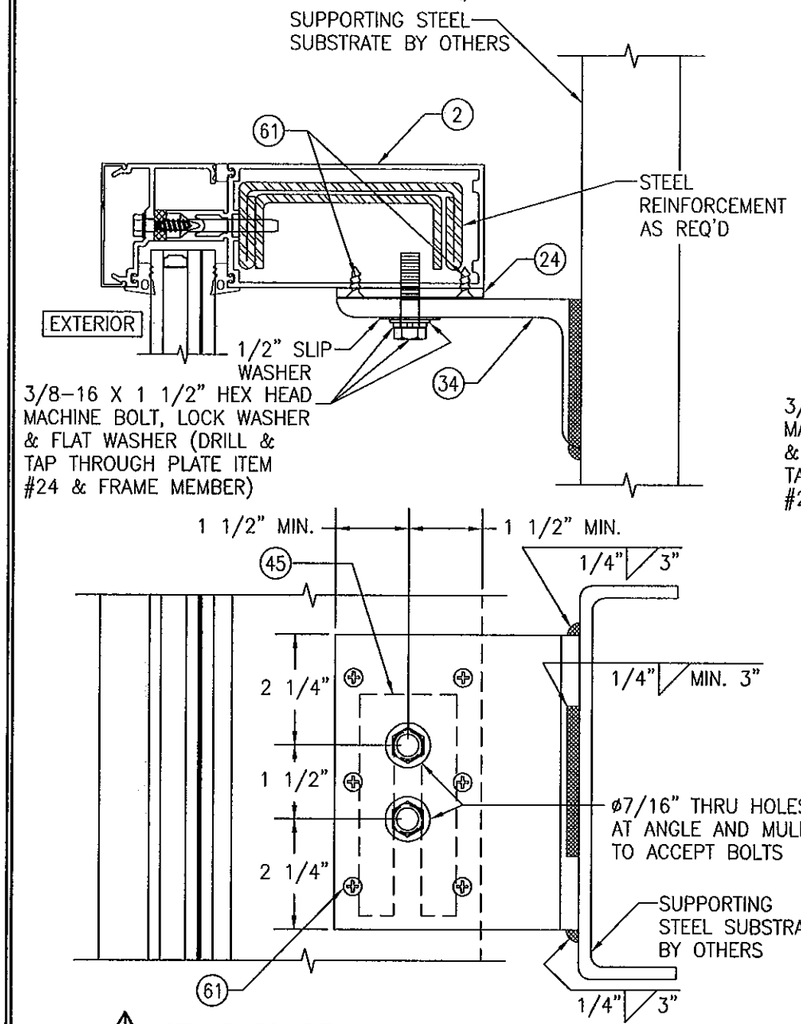
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

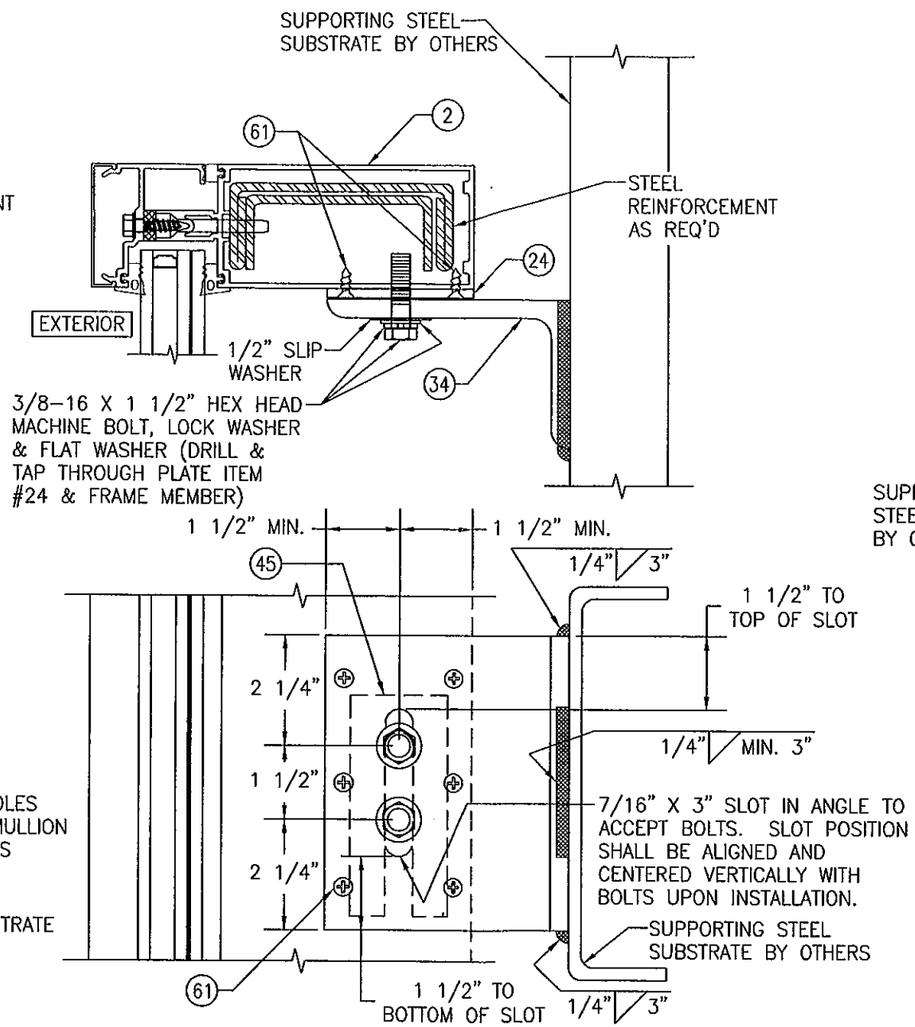
DRAWING NO. 1792 | REV.

SHEET NO. 5 OF 16



⚠ STANDARD DEAD LOAD ANCHOR AT SIDE JAMB MEMBERS

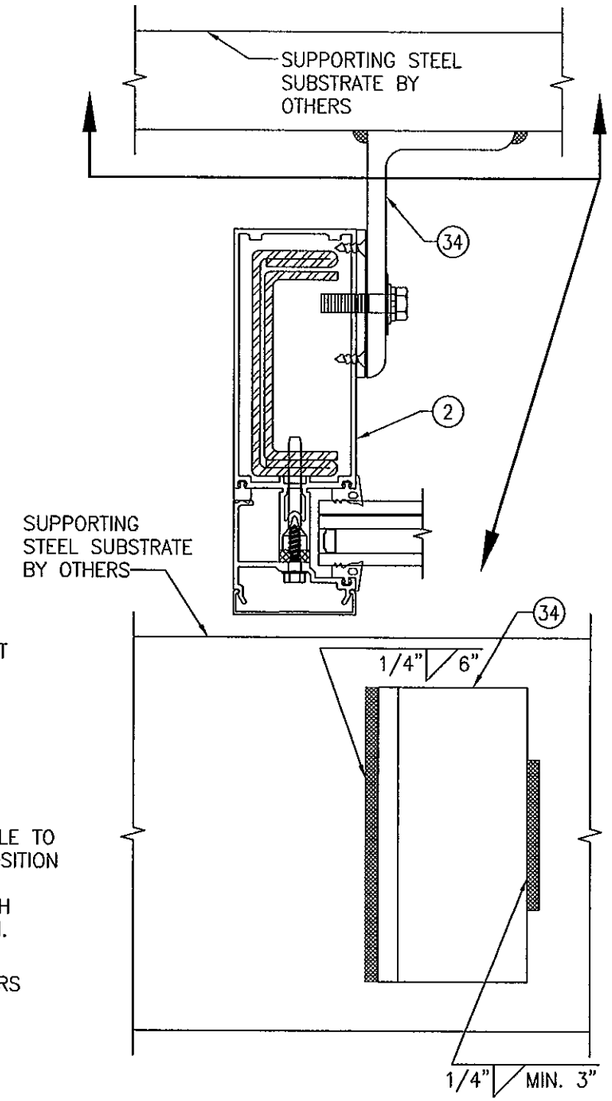
SCALE: 1/3 FULL



⊞ STANDARD WIND LOAD ANCHOR AT SIDE JAMB MEMBERS

SCALE: 1/3 FULL

NOTE: ALL 3/8" BOLTS CONNECTING ANGLES TO MULLIONS SHALL BE GRADE 5 STEEL OR 300 SERIES STAINLESS STEEL.



ALTERNATE WELD DETAIL FOR WIND & DEAD LOAD ANCHORS AT SIDE JAMB MEMBERS

SCALE: 1/3 FULL

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1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

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555 GUTHRIDGE COURT
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7480 150TH COURT NORTH
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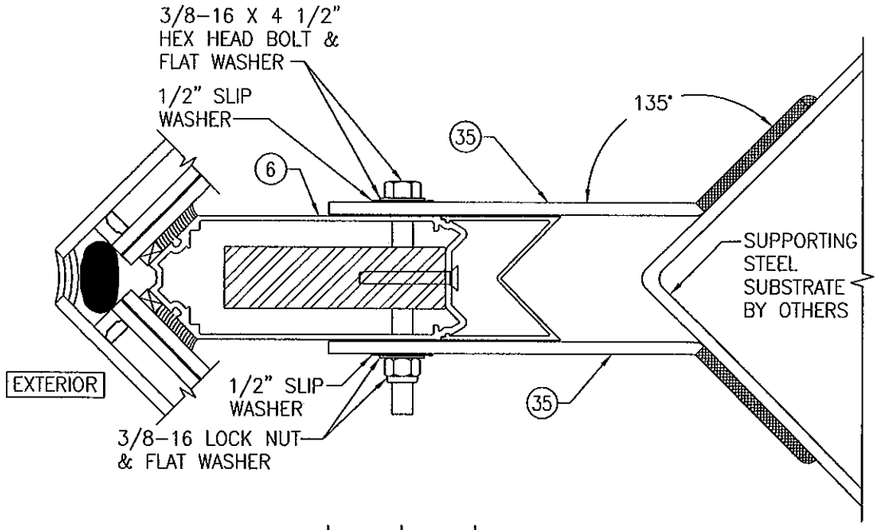
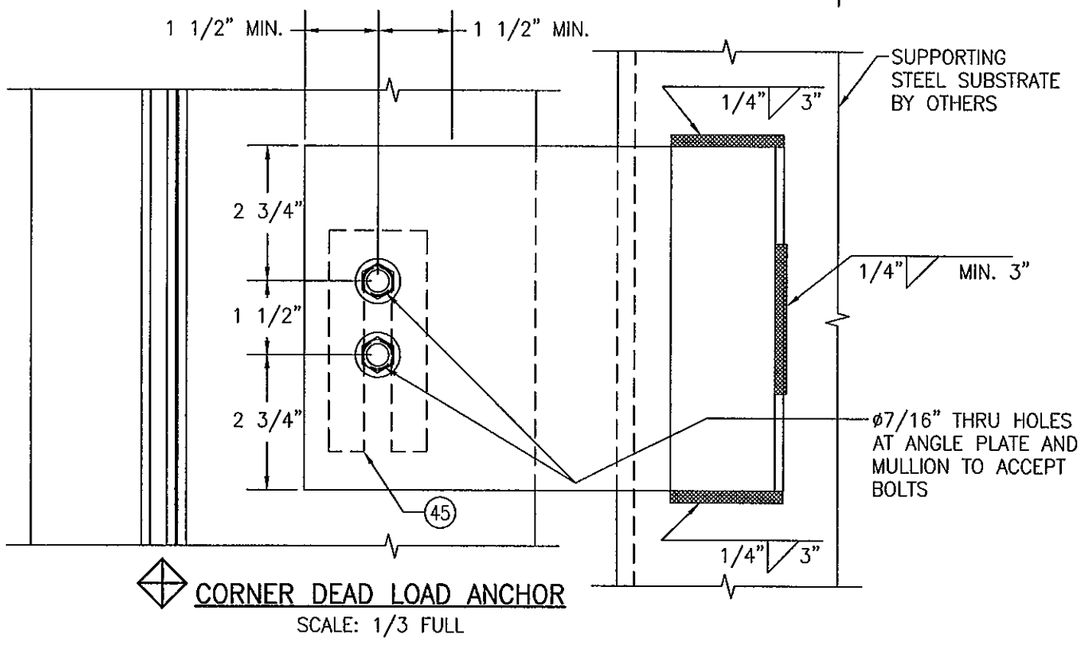
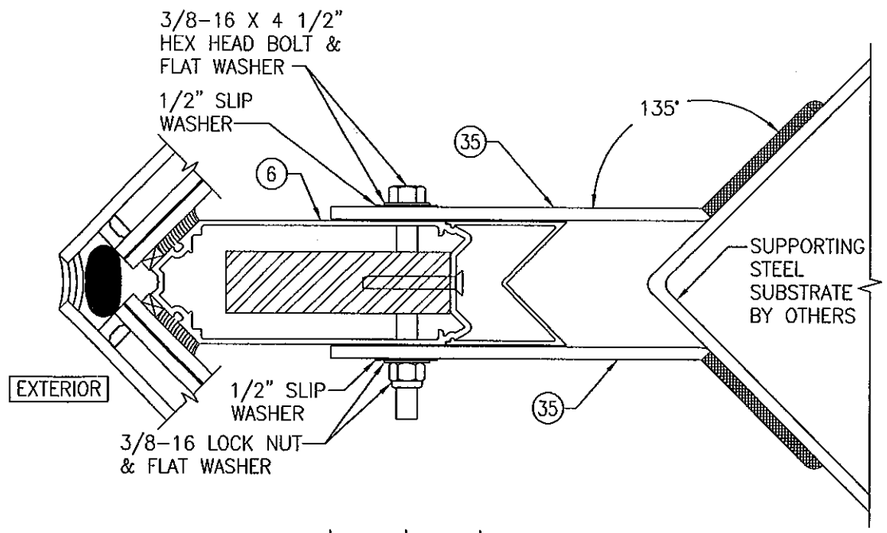
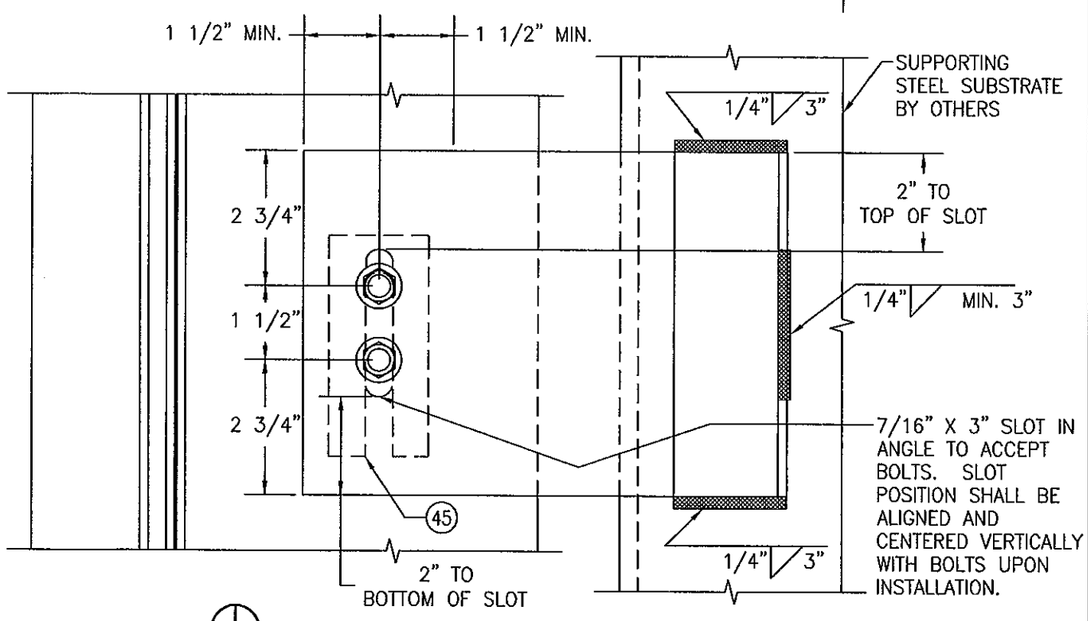
DRAWING NO. 1792 | REV.
SHEET NO. 6 OF 16





CORNER DEAD LOAD ANCHOR
SCALE: 1/3 FULL





CORNER WIND LOAD ANCHOR
SCALE: 1/3 FULL

NOTE: ALL 3/8" BOLTS CONNECTING ANGLES TO MULLIONS SHALL BE GRADE 5 STEEL OR 300 SERIES STAINLESS STEEL.

FOR ALTERNATE WELDING OF ANGLES TO SUBSTRATE, SEE "ALTERNATE WELD DETAIL" ON SHEET 5.

PRODUCT REVISED
as complying with the Florida Building Code
Acceptance No 12-0622.08
Expiration Date 06/09/2016
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Miami Dade Product Control

WARREN W. SCHAEFER ★ ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

JUN 19 2012

WARREN W. SCHAEFER, P.E.
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DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

MANUFACTURER
KAWNEER COMPANY, INC.
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770–449–5555

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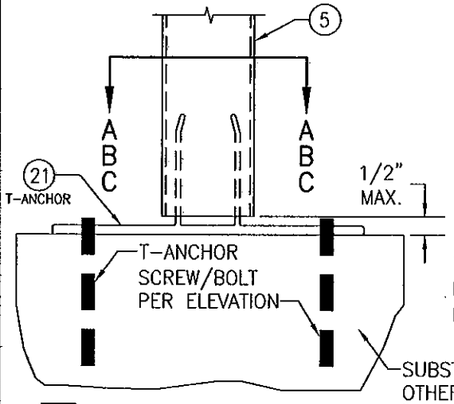
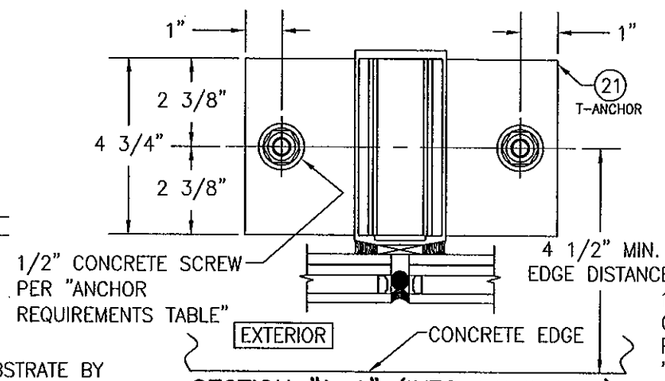
PHONE: 561–744–3424

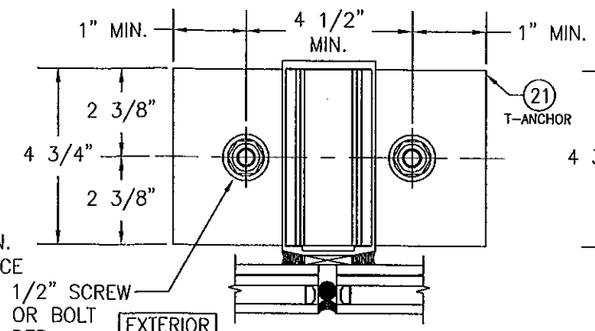
DRAWING NO. 1792 | REV.
SHEET NO. 7 OF 16



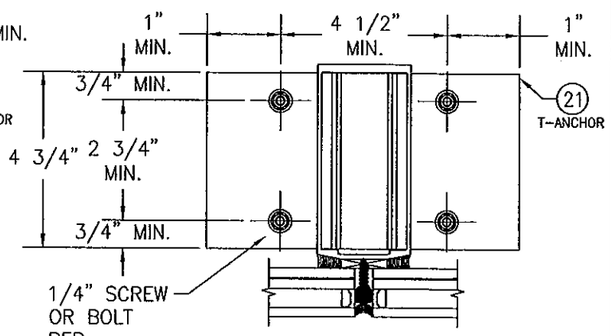
STANDARD T-ANCHOR
SCALE: 1/4 FULL



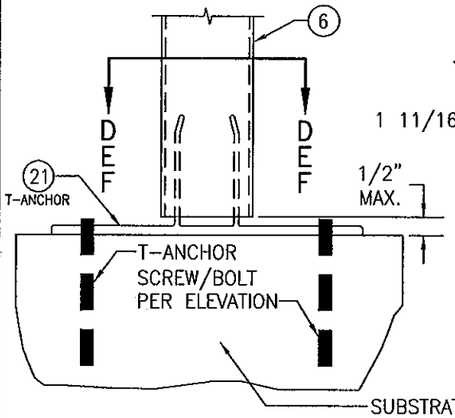
SECTION "A-A" (INTO CONCRETE)
SCALE: 1/4 FULL



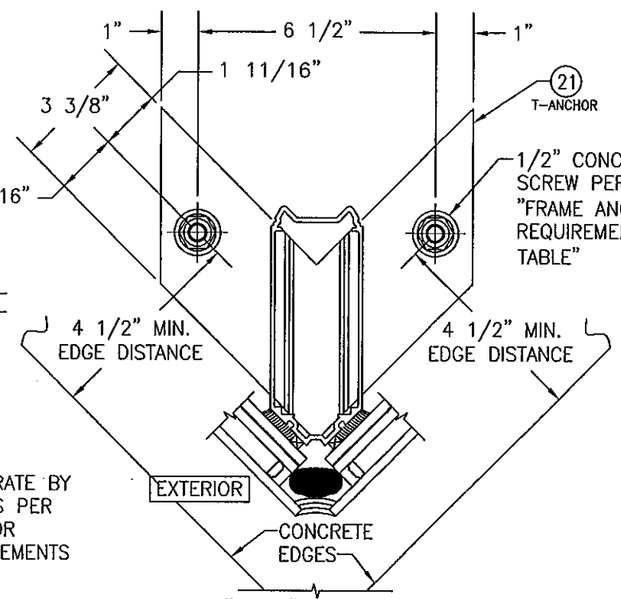
SECTION "B-B" (INTO STEEL)
SCALE: 1/4 FULL



SECTION "C-C" (ALTERNATE INTO STEEL)
SCALE: 1/4 FULL



CORNER T-ANCHOR
SCALE: 1/4 FULL



SECTION "D-D" (INTO CONCRETE)
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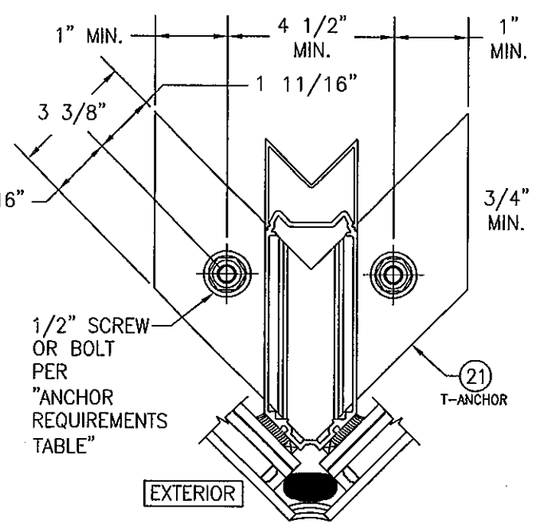
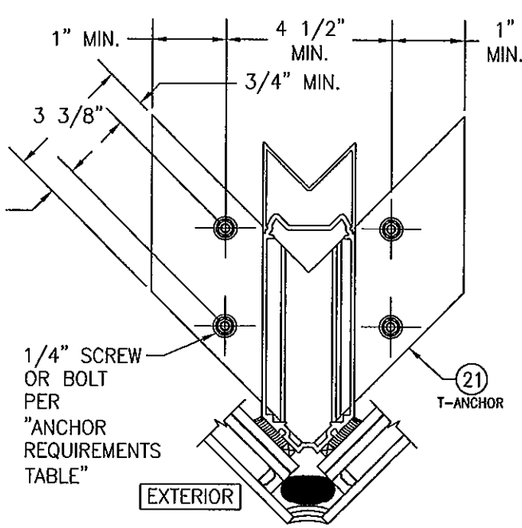


SECTION "E-E" (INTO STEEL)
SCALE: 1/4 FULL



SECTION "F-F" (ALTERNATE INTO STEEL)
SCALE: 1/4 FULL

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Miami Dade Product Control

WARREN W. SCHAEFER ★ PROFESSIONAL ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA

JUN 18 2012

NO.	REVISION DESCRIPTION	BY	DATE

DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=4 | DATE: 06/05/12

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)
MANUFACTURER

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
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KAWNEER COMPANY, INC.
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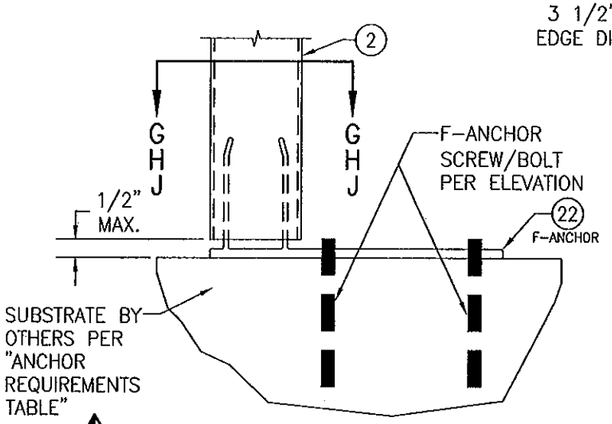
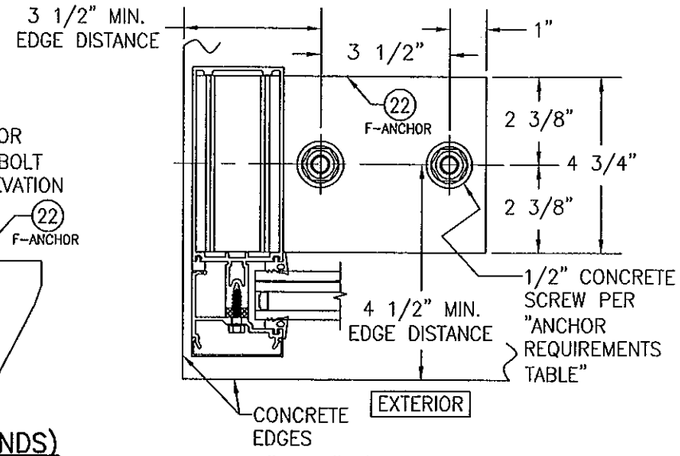
770-449-5555

WARREN W. SCHAEFER, P.E.
FLA. P.E. NO. 44135

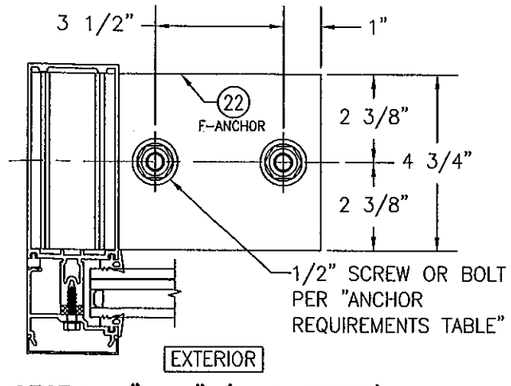
DRAWING NO. 1792 | REV.
SHEET NO. 8 OF 16



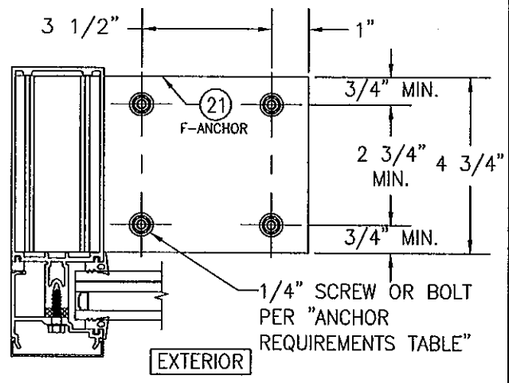
⚠ F-ANCHOR (FRAME MEMBER ENDS)
SCALE: 1/4 FULL



SECTION "G-G" (INTO CONCRETE)
SCALE: 1/4 FULL



SECTION "H-H" (INTO STEEL)
SCALE: 1/4 FULL



SECTION "J-J"
(ALTERNATE INTO STEEL)
SCALE: 1/4 FULL

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0622.08
Expiration Date 06/09/2015
By
Miami Dade Product Control

WARREN W. SCHAEFER ★ LICENSE ★ No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=4	DATE: 06/05/12

NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

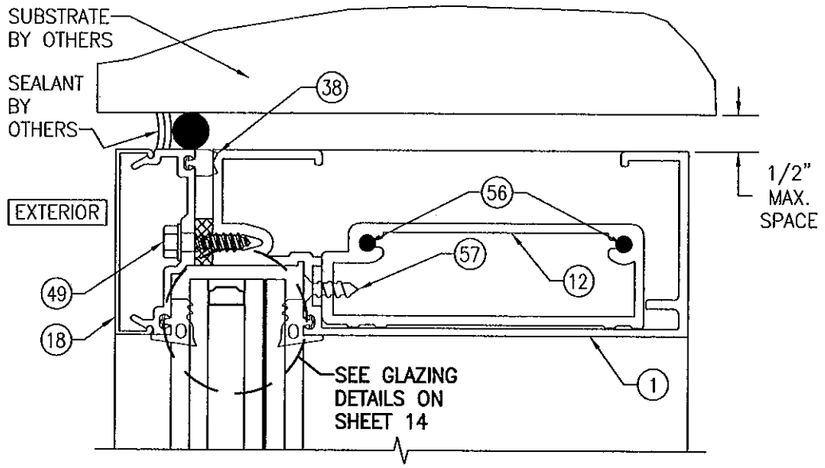
MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

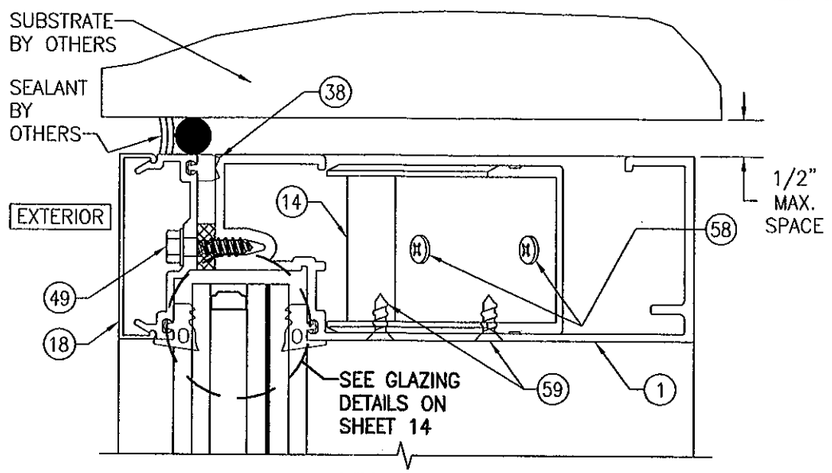
CERTIFICATION
JUN 19 2012
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1792 | REV.

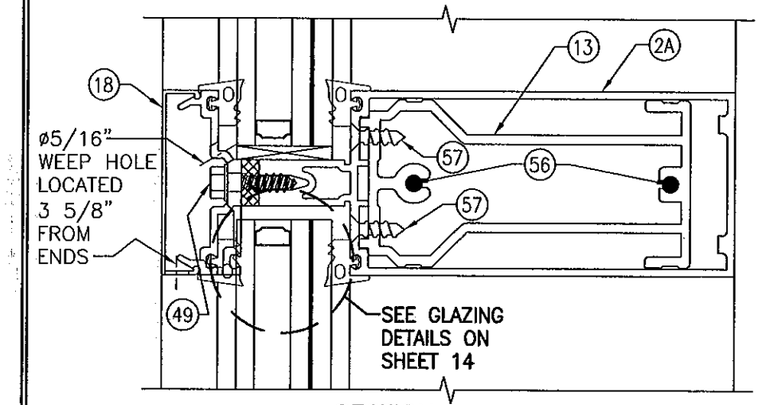
SHEET NO. 9 OF 16



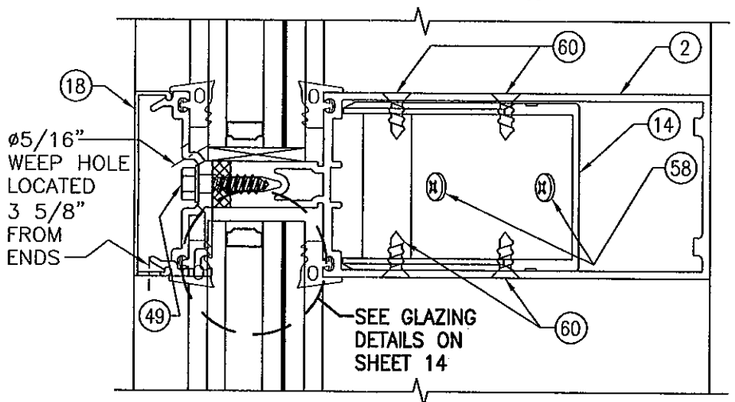
SECTION A1/10
SCALE: 1/2 FULL



SECTION A2/10
SCALE: 1/2 FULL



SECTION B1/10
SCALE: 1/2 FULL



SECTION B2/10
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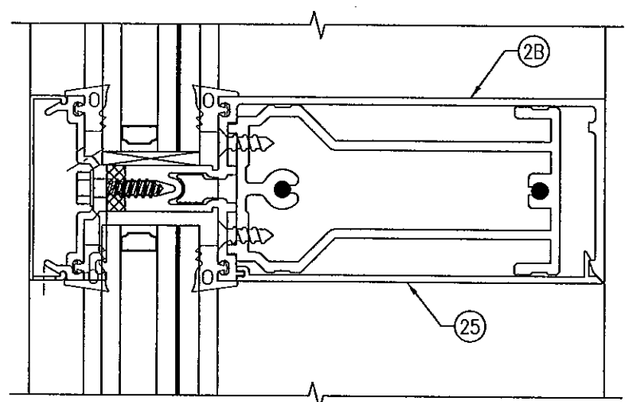
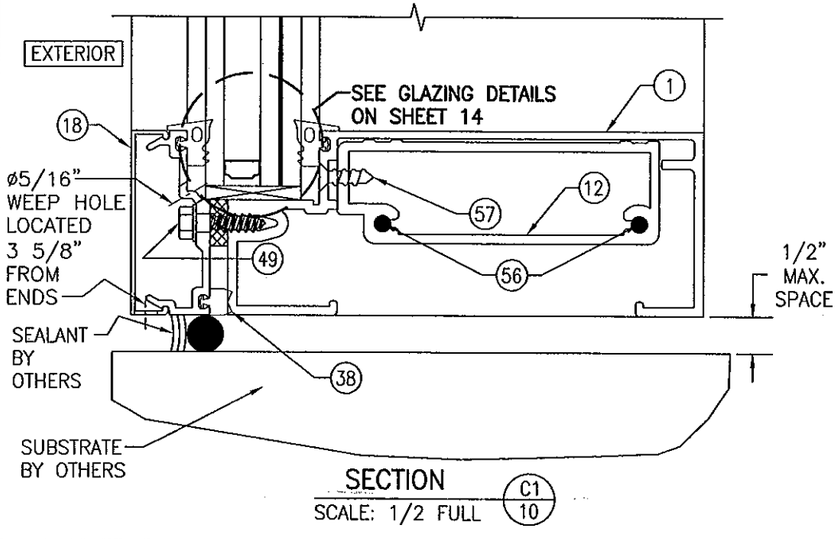
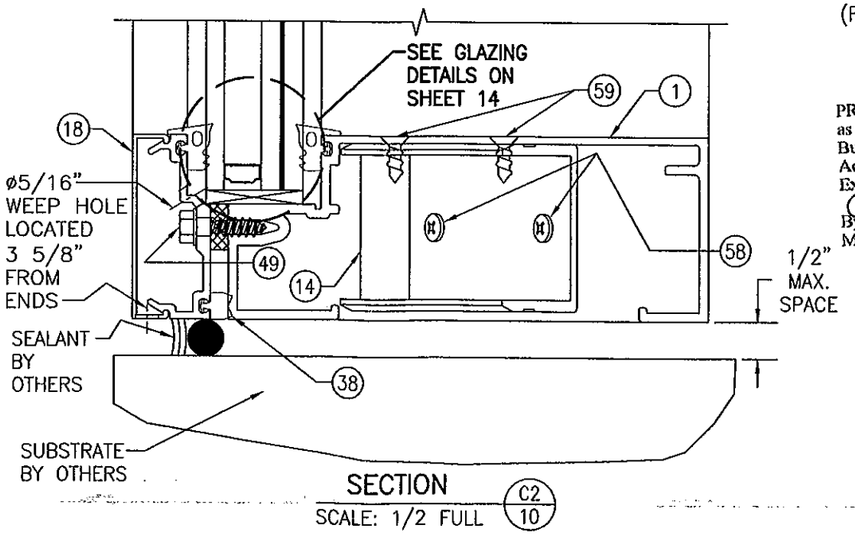


SECTION B3/10
SCALE: 1/2 FULL

(FOR DETAIL NOT SHOWN, SEE SECTION B1/10)



SECTION C1/10
SCALE: 1/2 FULL



SECTION C2/10
SCALE: 1/2 FULL

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0622.08
Expiration Date 06/09/2015
By
Miami Dade Product Control

WARREN W. SCHAEFER LICENSE No. 44135 STATE OF FLORIDA PROFESSIONAL ENGINEER

JUN 18 2012

NO.	REVISION DESCRIPTION	BY	DATE

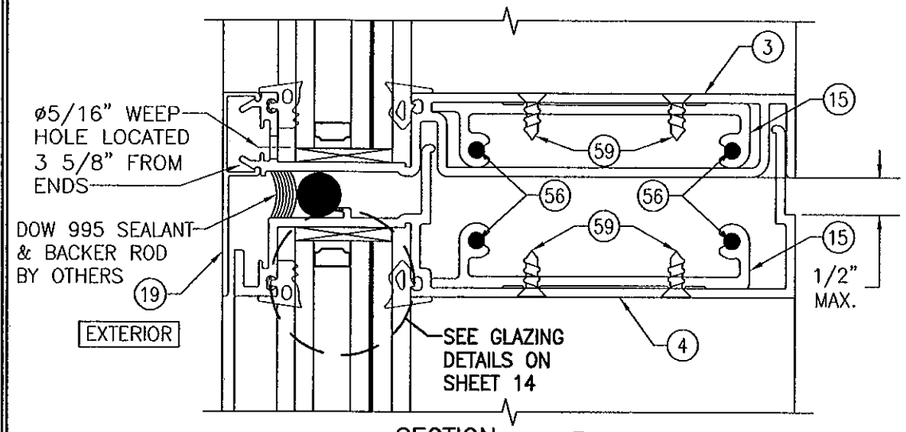
DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=2 | DATE: 06/05/12

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL
MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

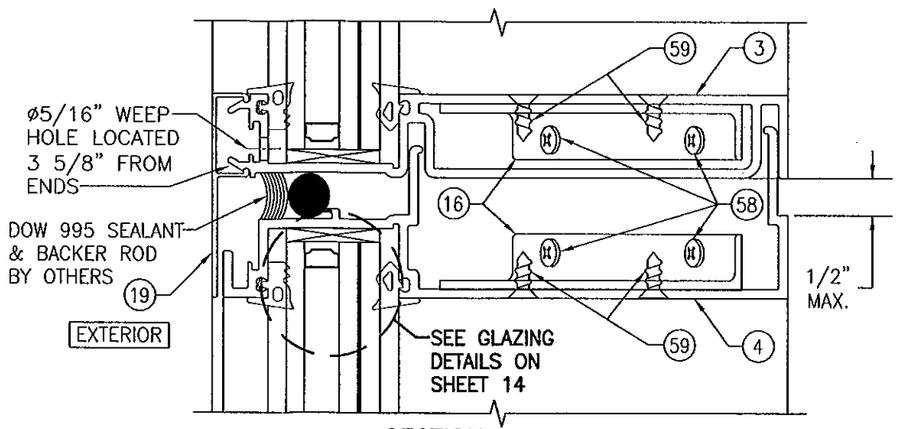
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1792 | REV.
SHEET NO. 10 OF 16



SECTION D1/11
SCALE: 1/2 FULL



SECTION D2/11
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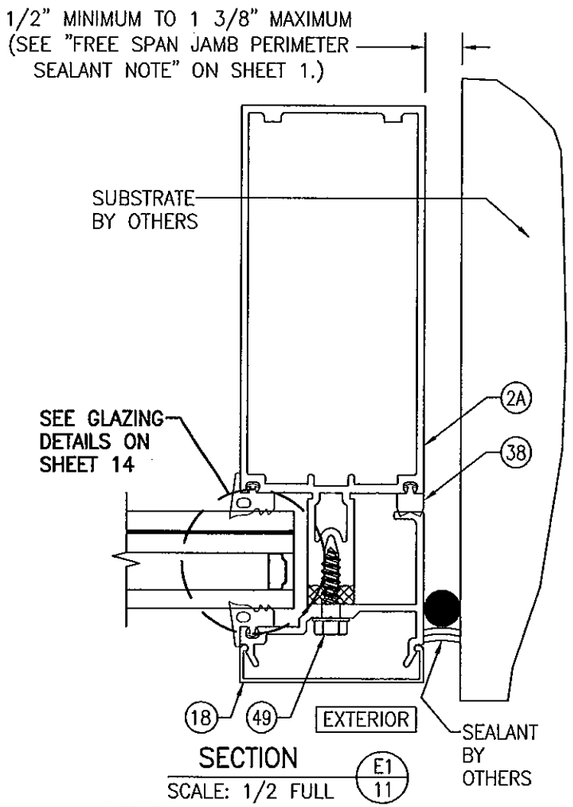
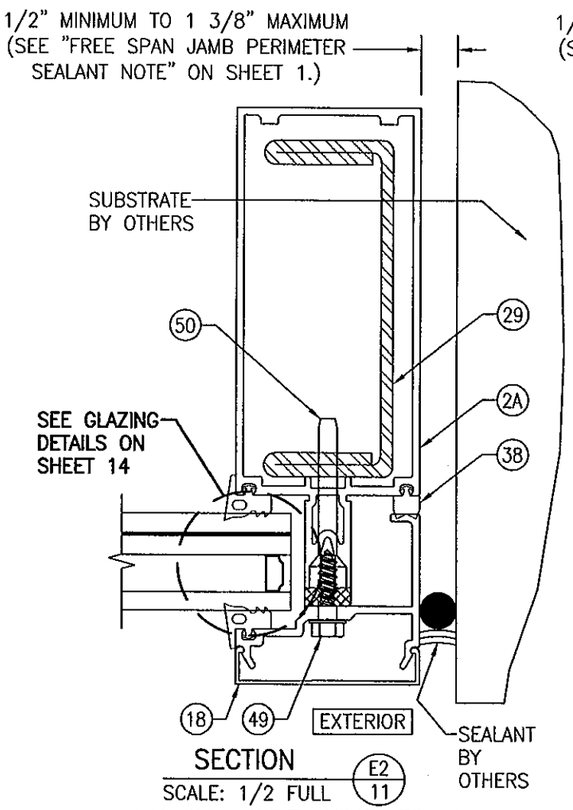


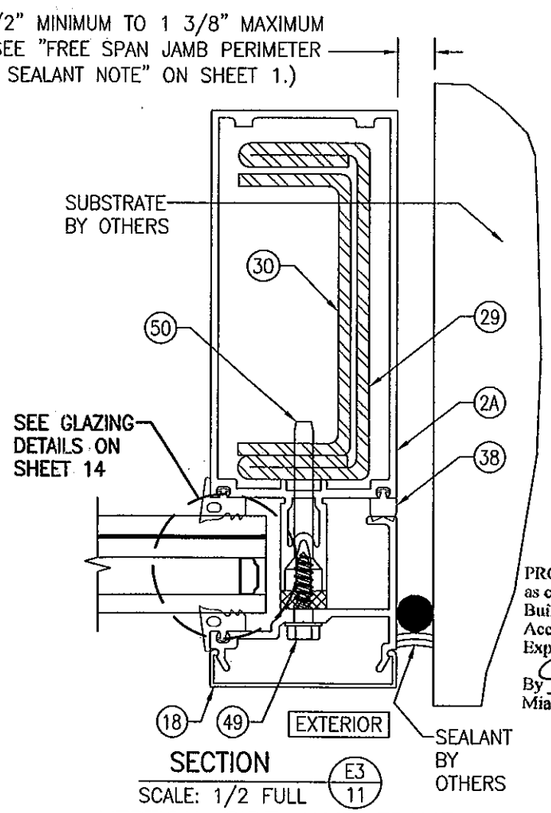
SECTION E1/11
SCALE: 1/2 FULL

VERTICAL SIDE JAMB FRAME MEMBER WITH NO REINFORCEMENT
I = 14.718 IN^4
S = 3.706 IN^3



SECTION E2/11
SCALE: 1/2 FULL

VERTICAL SIDE JAMB FRAME MEMBER WITH REINFORCEMENT R1
I = 33.707 IN^4
S = 7.993 IN^3
(TRANSFORMED SECTION PROPERTIES IN TERMS OF ALUMINUM)



SECTION E3/11
SCALE: 1/2 FULL

VERTICAL SIDE JAMB FRAME MEMBER WITH REINFORCEMENT R2
I = 40.379 IN^4
S = 9.325 IN^3
(TRANSFORMED SECTION PROPERTIES IN TERMS OF ALUMINUM)

PRODUCT REVISED
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By
Miami Dade Product Control

WARREN W. SCHAEFER ★ ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL
JUN 19 2012

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 08/05/12

NO.	REVISION DESCRIPTION	BY	DATE

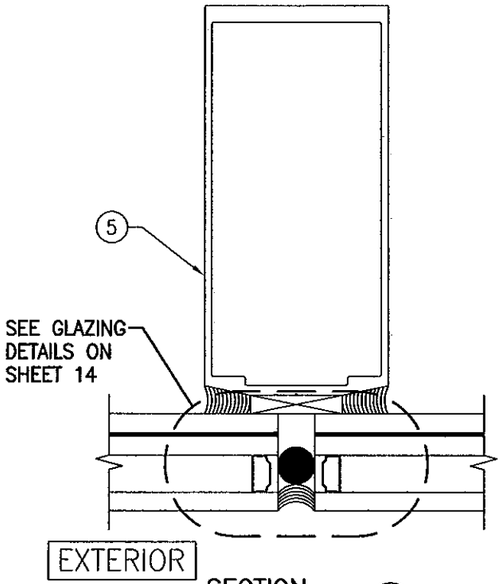
DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

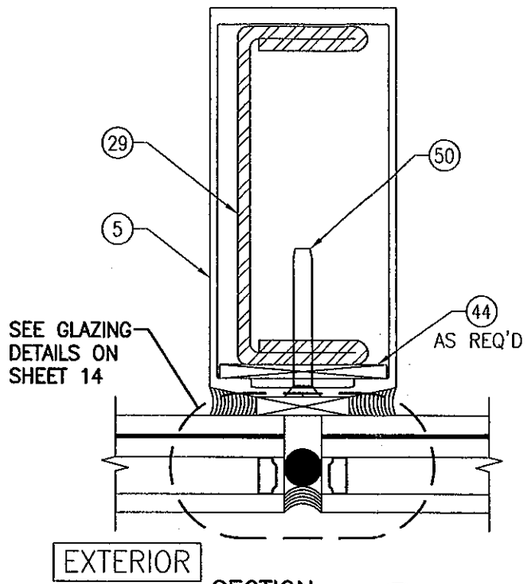
DRAWING NO. 1792
REV.
SHEET NO. 11 OF 16



SECTION F1/12
SCALE: 1/2 FULL

VERTICAL INTERMEDIATE FRAME MEMBER WITH NO REINFORCEMENT

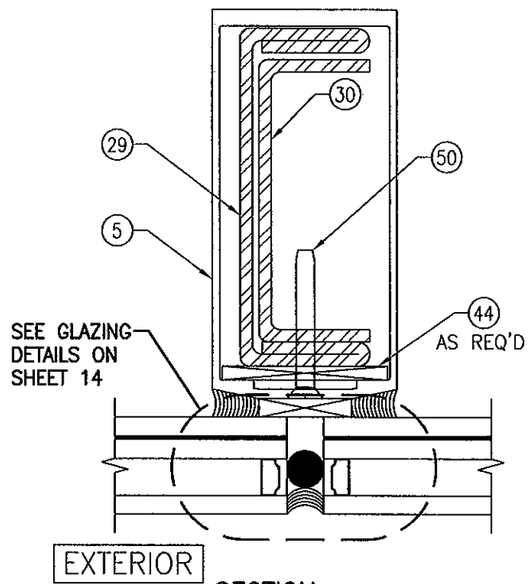
I = 7.559 IN^4
S = 2.635 IN^3



SECTION F2/12
SCALE: 1/2 FULL

VERTICAL INTERMEDIATE FRAME MEMBER WITH REINFORCEMENT R1

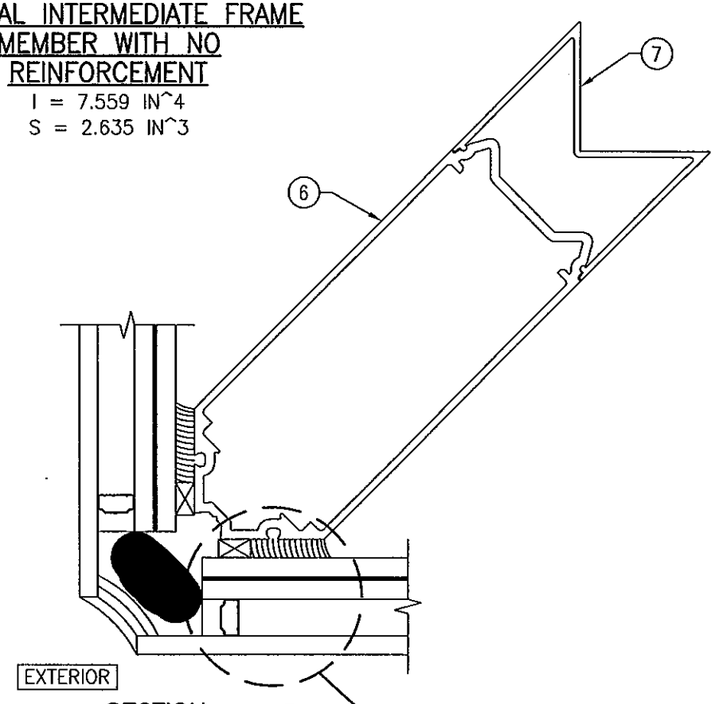
I = 23.971 IN^4
S = 9.059 IN^3
(TRANSFORMED SECTION PROPERTIES IN TERMS OF ALUMINUM)



SECTION F3/12
SCALE: 1/2 FULL

VERTICAL INTERMEDIATE FRAME MEMBER WITH REINFORCEMENT R2

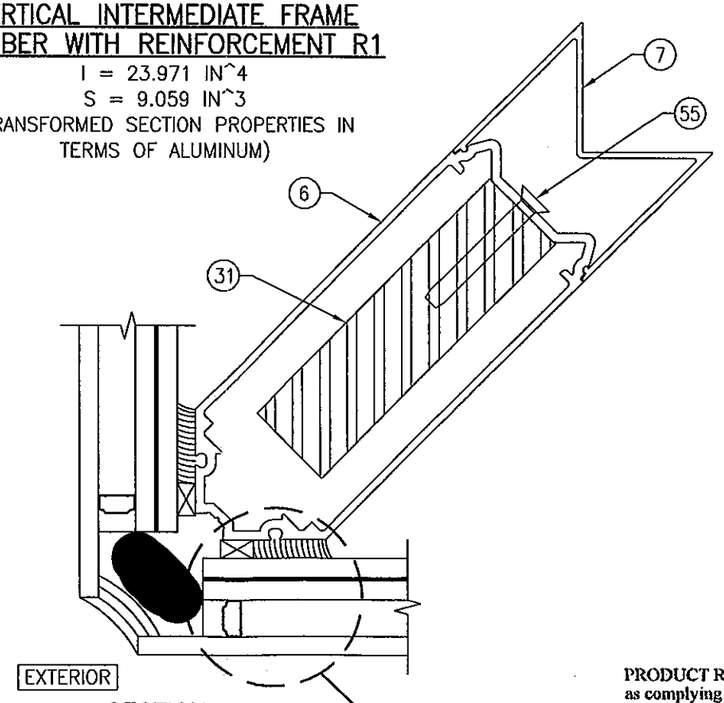
I = 30.342 IN^4
S = 11.485 IN^3
(TRANSFORMED SECTION PROPERTIES IN TERMS OF ALUMINUM)



SECTION G1/12
SCALE: 1/2 FULL

VERTICAL CORNER/FRAME MEMBER WITH NO REINFORCEMENT

I = 9.685 IN^4 ← NOTE: "I" & "S" VALUES ARE TAKEN
S = 2.951 IN^3 IN THE PLANE OF THE MULLION



SECTION G2/12
SCALE: 1/2 FULL

VERTICAL CORNER/FRAME MEMBER WITH REINFORCEMENT R3

I = 37.376 IN^4 ← NOTE: "I" & "S" VALUES ARE TAKEN
S = 10.029 IN^3 IN THE PLANE OF THE MULLION
(TRANSFORMED SECTION PROPERTIES IN TERMS OF ALUMINUM)

PRODUCT REVISED
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Expiration Date 06/09/2015
By
Miami Dade Product Control

WARREN W. SCHAEFER ★ ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL CERTIFICATION

NO.	REVISION DESCRIPTION	BY	DATE

DRAWN BY: W.W.S. | CHECKED BY: W.W.S.
PLOT: 1=2 | DATE: 06/05/12

DRAWING TITLE: 1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

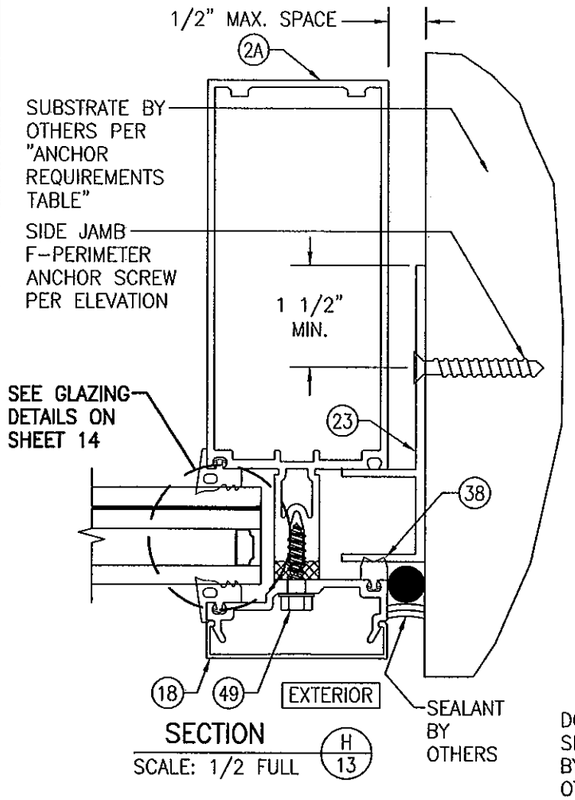
MANUFACTURER: KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS: W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

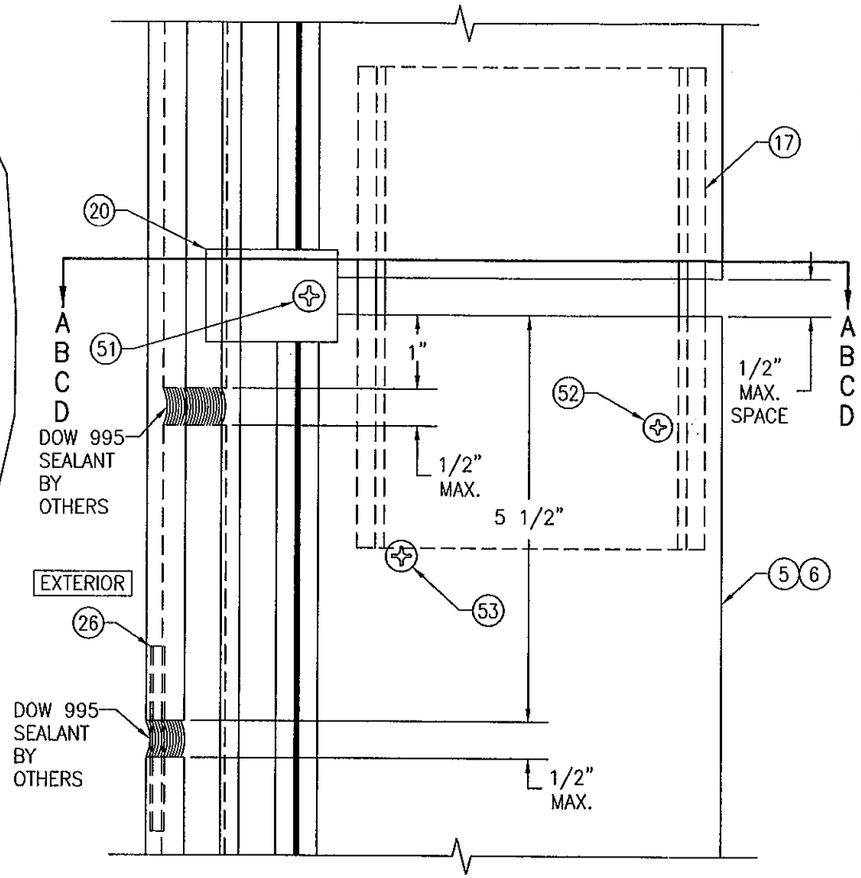
JUN 19 2012

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

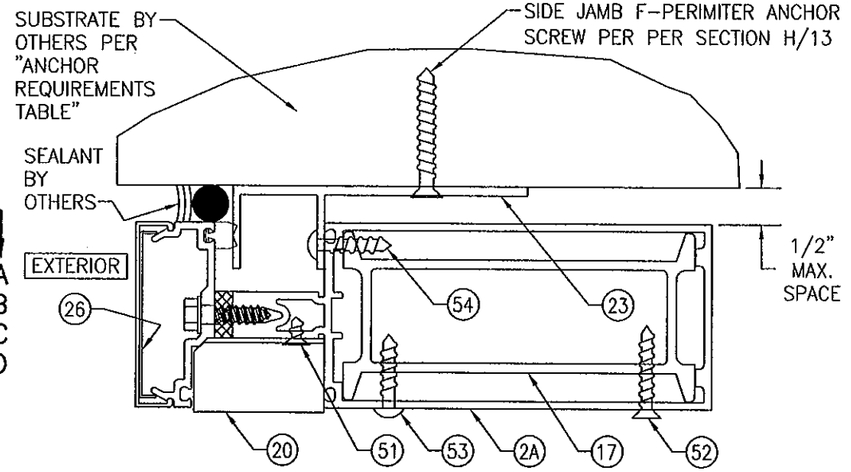
DRAWING NO. 1792 | REV.
SHEET NO. 12 OF 16



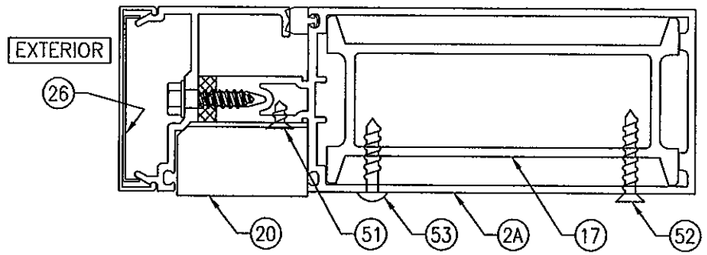
SECTION
SCALE: 1/2 FULL (H/13)



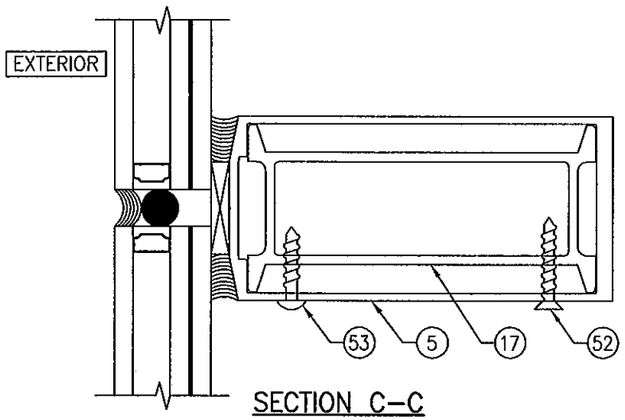
SPLICE JOINT DETAIL



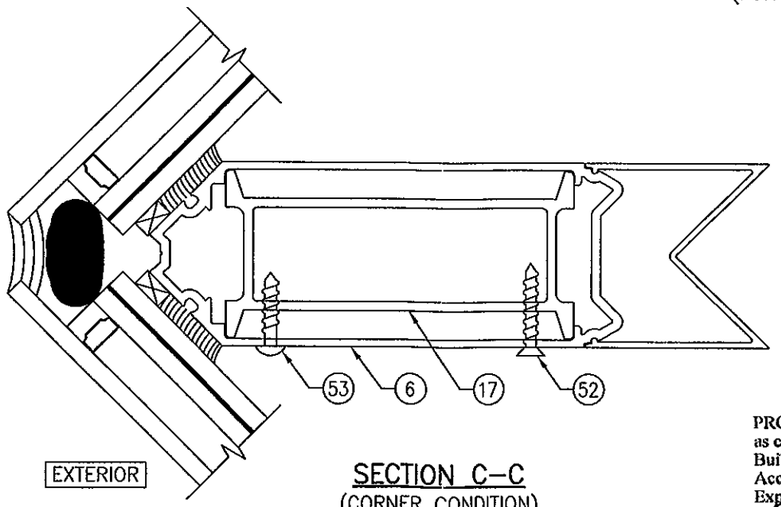
SECTION A-A
(CONTINUOUS F-PERIMETER ANCHOR JAMB CONDITION)
(FOR DETAIL NOT SHOWN, SEE SECTION H/13)



SECTION B-B
(STANDARD JAMB CONDITION)
(FOR DETAIL NOT SHOWN, SEE SECTION C1/11, C2/11 & C3/11)



SECTION C-C
(INTERMEDIATE CONDITION)
(FOR DETAIL NOT SHOWN, SEE SECTION F1/12, F2/12 & F3/12)



SECTION C-C
(CORNER CONDITION)
(FOR DETAIL NOT SHOWN, SEE SECTION G1/12 & G2/12)

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Expiration Date 06/09/2015
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Miami Dade Product Control

W. SCHAEFER LICENSE No. 44135 STATE OF FLORIDA PROFESSIONAL ENGINEER

JUN 19 2012

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 06/05/12

NO.	REVISION DESCRIPTION	BY	DATE

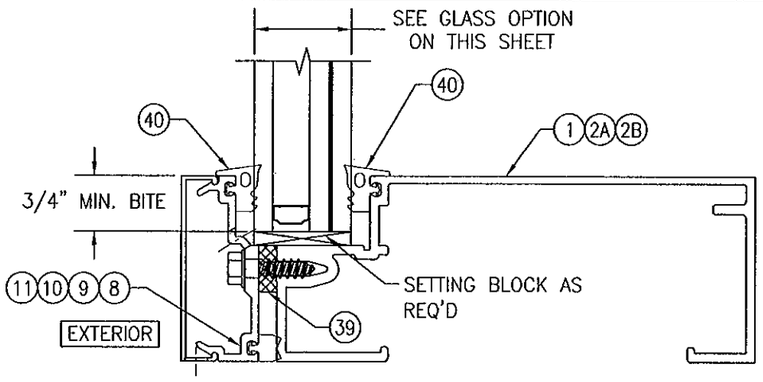
MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

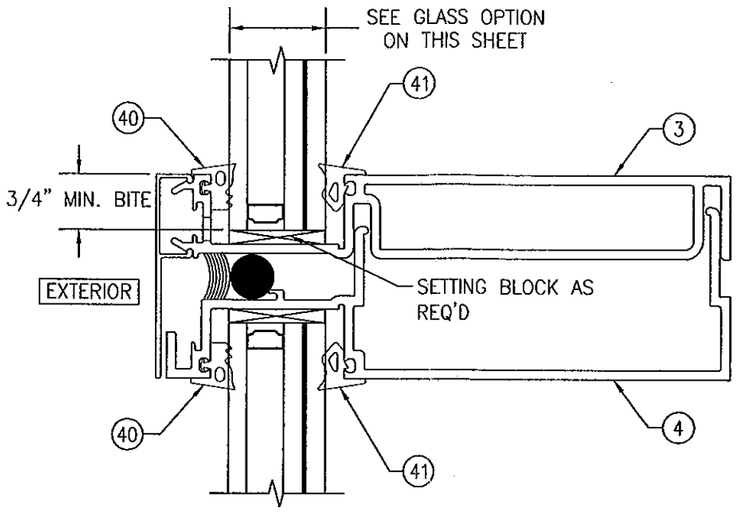
CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

CERTIFICATION
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

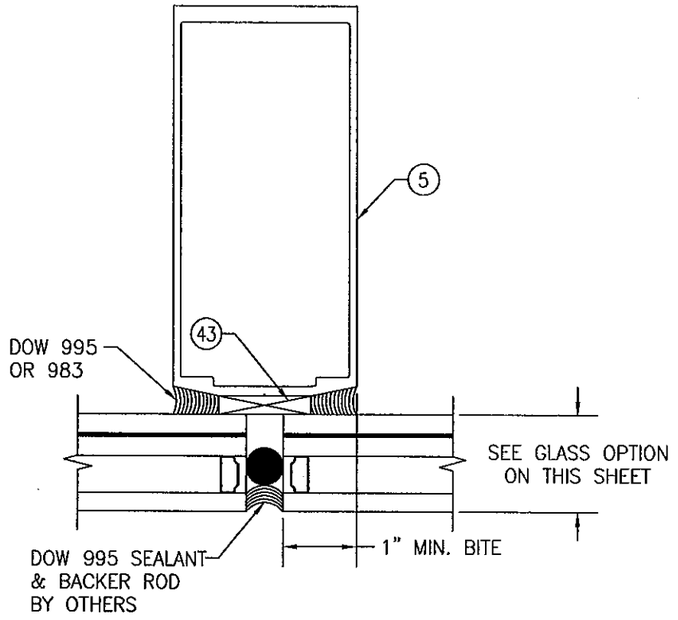
DRAWING NO. 1792 | REV.
SHEET NO. 13 OF 16



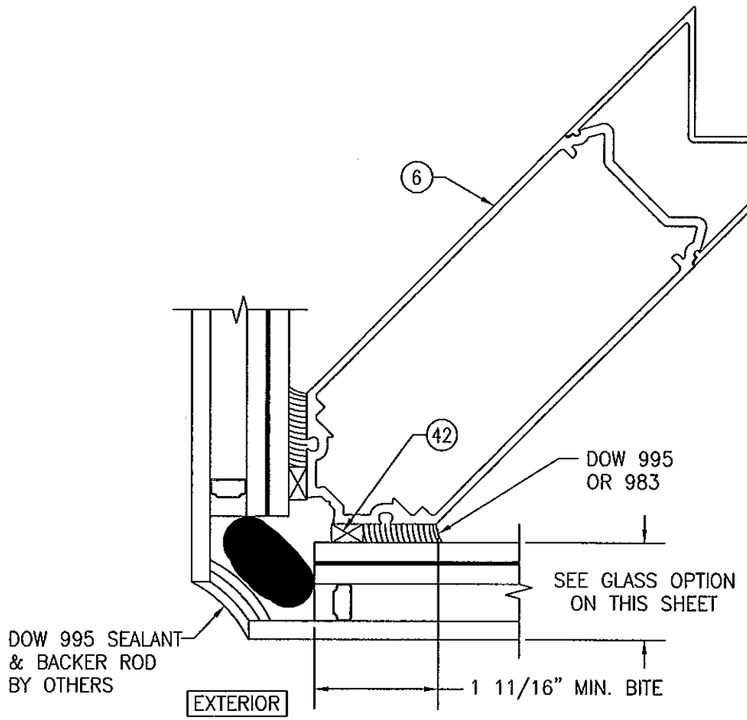
TYPICAL GLAZING DETAIL TO SIDE JAMB & HORIZONTAL FRAMING



TYPICAL GLAZING DETAIL TO SPLICE JOINT FRAMING



TYPICAL GLAZING DETAIL TO VERTICAL INTERMEDIATE FRAMING



TYPICAL GLAZING DETAIL TO CORNER FRAMING

GLASS OPTION:

OPTION 1: 1 5/16" THICK I.G LAMINATED GLASS (1/4" TEMPERED EXTERIOR; 1/2" AIR SPACE; 1/4" HT. ST./0.060" SOLUTIA SAFLEX IIIG PVB/1/4" HT. ST. INTERIOR)

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0622.08
Expiration Date 06/07/2015
By
Miami Dade Product Control

WARREN W. SCHAEFER ★ ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 06/05/12

NO.	REVISION DESCRIPTION	BY	DATE

MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

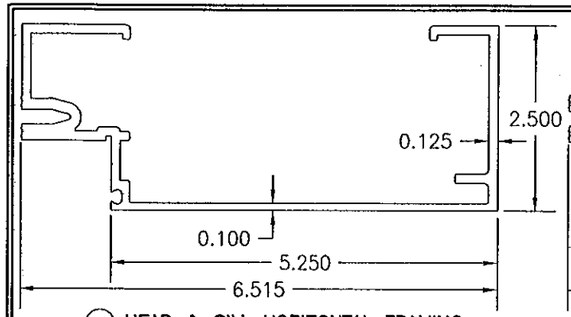
DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

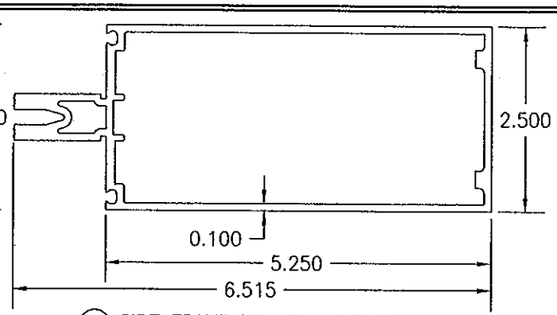
CERTIFICATION
JUN 19 2012
WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

DRAWING NO. 1792 | REV.

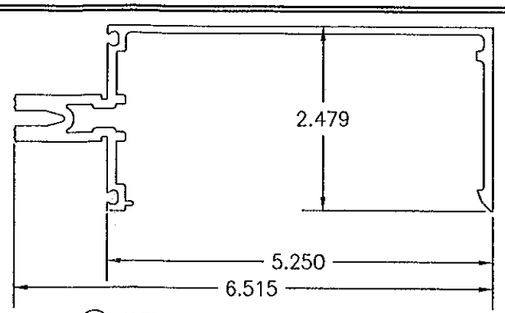
SHEET NO. 14 OF 16



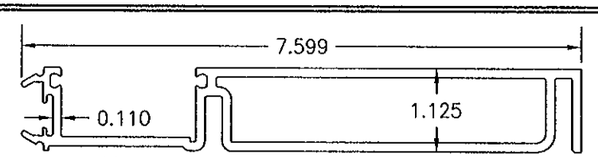
1 HEAD & SILL HORIZONTAL FRAMING



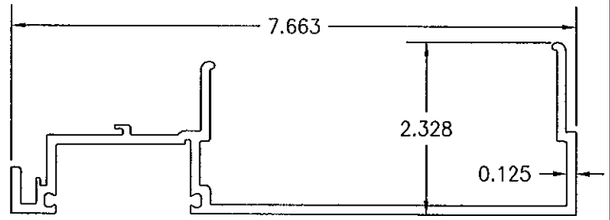
2A SIDE FRAMING OR STANDARD HORIZONTAL INTERMEDIATE MEMBER



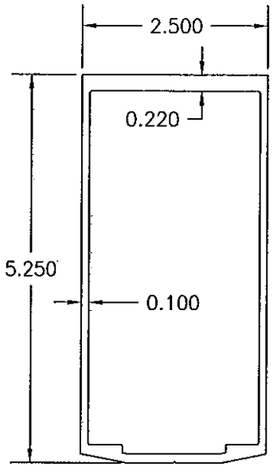
2B ALTERNATE HORIZONTAL INTERMEDIATE MEMBER



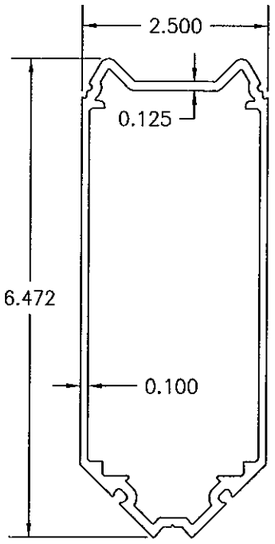
3 FEMALE HALF EXPANSION HORIZONTAL



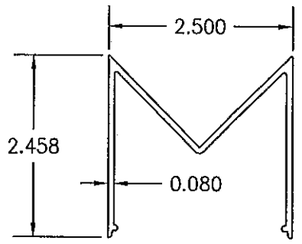
4 MALE HALF EXPANSION HORIZONTAL



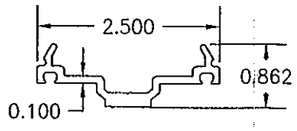
5 VERTICAL MULLION
I = 7.559^4
S = 2.635^3



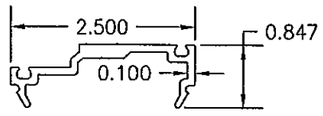
6 CORNER MULLION
I = 9.685^4
S = 2.951^3



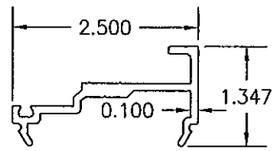
7 CORNER MULLION COVER



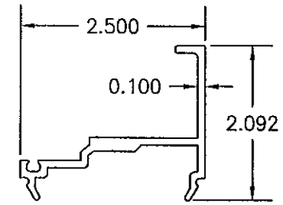
8 PRESSURE PLATE



9 PRESSURE PLATE

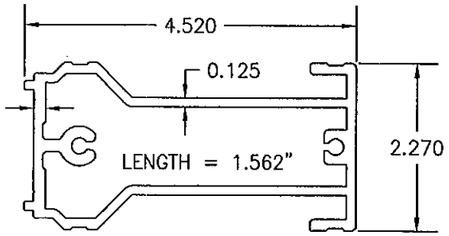


10 PRESSURE PLATE

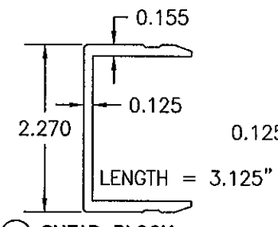


11 PRESSURE PLATE

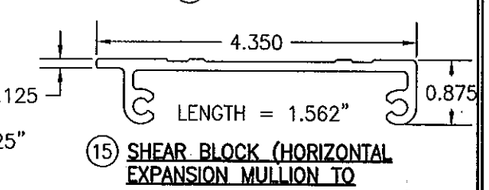
12 SHEAR BLOCK (HORIZONTAL FRAMING TO VERTICAL MULLION)



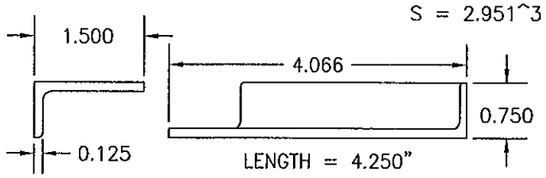
13 SHEAR BLOCK (STANDARD HORIZONTAL TO VERTICAL MULLION)



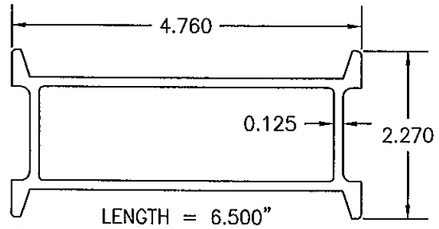
14 SHEAR BLOCK (HORIZONTAL FRAMING TO CORNER MULLION)



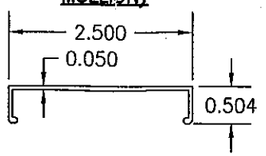
15 SHEAR BLOCK (HORIZONTAL EXPANSION MULLION TO STANDARD VERTICAL MULLION)



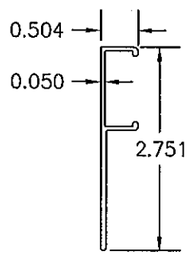
16 SHEAR BLOCK (HORIZONTAL EXPANSION MULLION TO CORNER MULLION)



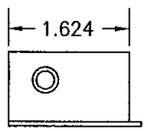
17 VERTICAL MULLION SPLICE SLEEVE

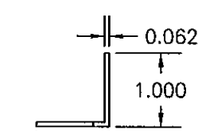


18 PRESSURE PLATE COVER

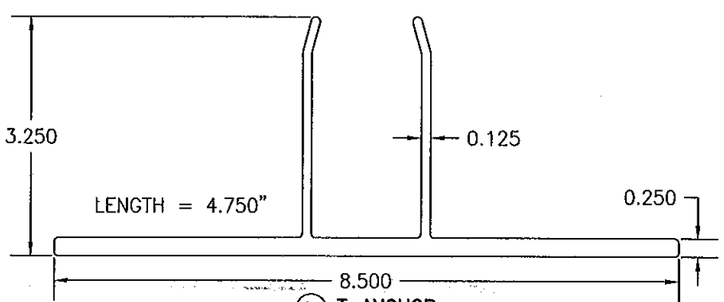


19 EXPANSION HORIZONTAL MULLION COVER

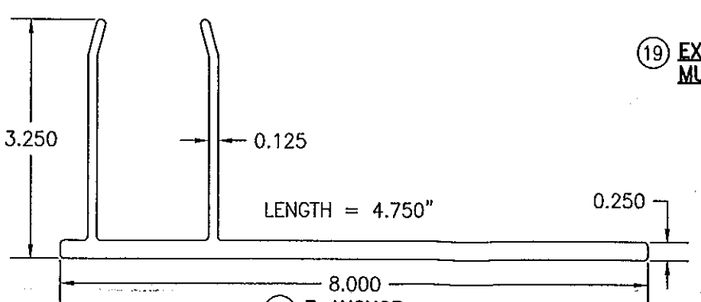




20 JOINT PLUG USED WITH I.G. GLASS SYSTEMS



21 T-ANCHOR



22 F-ANCHOR

PRODUCT REVISED
as complying with the Florida
Building Code
Acceptance No 12-0622.08
Expiration Date 06/09/2015
By
Miami Dade Product Control

WARREN W. SCHAEFER ★ ENGINEER ★ LICENSE No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

JUN 19 2012

WARREN W. SCHAEFER, P.E.
P.E. NO. 44135

CERTIFICATION

DRAWN BY: W.W.S.	CHECKED BY: W.W.S.
PLOT: 1=2	DATE: 06/05/12

NO.	REVISION DESCRIPTION	BY	DATE

DRAWING TITLE
1600 SYSTEM 2 CURTAIN WALL (S.M.I.)

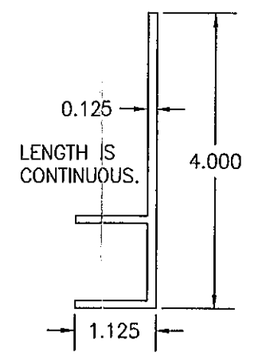
MANUFACTURER
KAWNEER COMPANY, INC.
555 GUTHRIDGE COURT
NORCROSS, GA 30092
770-449-5555

CONSULTANTS
W. W. SCHAEFER ENGINEERING & CONSULTING, P.A. (CA 6809)
7480 150TH COURT NORTH
PALM BEACH GARDENS, FL 33418
PHONE: 561-744-3424

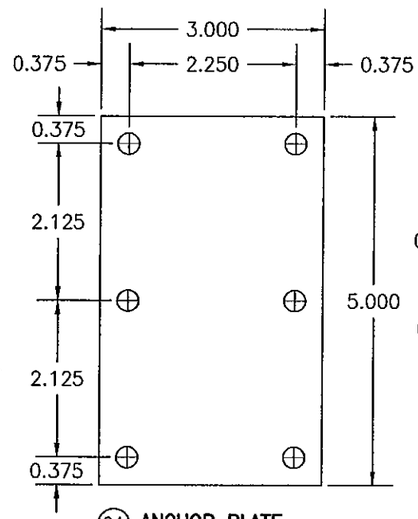
DRAWING NO. 1792
REV.
SHEET NO. 15 OF 16

ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
	PARTS	
1	HEAD & SILL HORIZONTAL FRAMING	6063–T6 ALUMINUM
2A	SIDE FRAMING OR STANDARD HORIZONTAL INTERMEDIATE MEMBER	6063–T6 ALUMINUM
2B	ALTERNATE HORIZONTAL INTERMEDIATE MEMBER	6063–T6 ALUMINUM
3	FEMALE HALF EXPANSION HORIZONTAL	6063–T6 ALUMINUM
4	MALE HALF EXPANSION HORIZONTAL	6063–T6 ALUMINUM
5	VERTICAL MULLION	6063–T6 ALUMINUM
6	CORNER MULLION	6063–T6 ALUMINUM
7	CORNER MULLION COVER	6063–T6 ALUMINUM
8	PRESSURE PLATE	6063–T6 ALUMINUM
9	PRESSURE PLATE	6063–T6 ALUMINUM
10	PRESSURE PLATE	6063–T6 ALUMINUM
11	PRESSURE PLATE	6063–T6 ALUMINUM
12	SHEAR BLOCK (HORIZONTAL FRAMING TO STANDARD VERTICAL MULLION)	6063–T6 ALUMINUM
13	SHEAR BLOCK (STANDARD HORIZONTAL TO STANDARD VERTICAL MULLION)	6063–T6 ALUMINUM
14	SHEAR BLOCK (HORIZONTAL FRAMING TO CORNER MULLION)	6063–T6 ALUMINUM
15	SHEAR BLOCK (HORIZONTAL EXPANSION MULLION TO STANDARD VERTICAL MULLION)	6063–T6 ALUMINUM
16	SHEAR BLOCK (HORIZONTAL EXPANSION MULLION TO CORNER MULLION)	6063–T6 ALUMINUM
17	VERTICAL MULLION SPLICE SLEEVE	6063–T6 ALUMINUM
18	PRESSURE PLATE COVER	6063–T6 ALUMINUM
19	EXPANSION HORIZONTAL MULLION COVER	6063–T6 ALUMINUM
20	JOINT PLUG	6063–T6 ALUMINUM
21	T–ANCHOR	6063–T6 ALUMINUM
22	F–ANCHOR	6063–T6 ALUMINUM
23	F–PERIMETER ANCHOR	6063–T6 ALUMINUM
24	ANCHOR PLATE	6063–T6 ALUMINUM
25	ALTERNATE HORIZONTAL INTERMEDIATE MEMBER COVER	6063–T6 ALUMINUM
26	COVER SPLICE	5005 H32 ALUMINUM
29	MULLION REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
30	MULLION REINFORCEMENT	ASTM A1011 GRADE 50 STEEL
31	CORNER MULLION REINFORCEMENT	ASTM A36 STEEL
34	5" X 3" X 3/8" X 6" LONG ANGLE	50 KSI STEEL
35	8" X 3" X 3/8" X 6" LONG BENT PLATE	50 KSI STEEL
	SEALS & SEALANTS	
38	FIXED GASKET	TREMCO TR4726P EPDM DUROMETER 70 +/–5
39	THERMAL SEPERATOR	TREMCO TR–4015P EPDM DUROMETER 60 +/–5
40	EXTERIOR GLAZING FIXED GASKET	TREMCO TR–4014P EPDM DUROMETER 60 +/–5
41	INTERIOR GLAZING FIXED GASKET	TREMCO TX–4305P EPDM DUROMETER 70 +/–5
43	1/4" X 1" GLAZING TAPE	NORTON V2100 FOAM OR TREMCO 920
44	3/16" X 2 1/4" SHIM	PLASTIC, STTEL OR ALUMINUM
45	STEEL TO ALUMINUM SEPERATOR	THERMO–TOK TN–9004

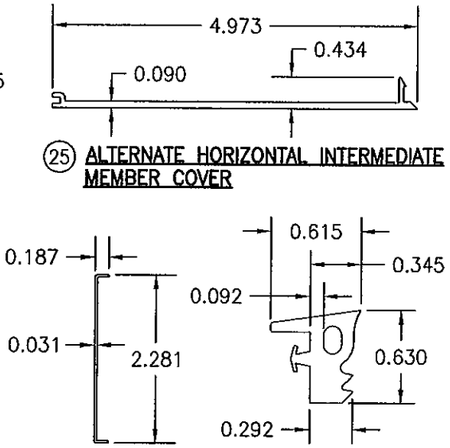
ITEM #	ITEM DESCRIPTION	MANUFACTURER/NOTES
	FASTENERS	
49	1/4" X 1" HWHTF TYPE AB SCREW 300 SERIES S.S.	WITHIN 3" FROM ENDS & 9" MAX. O.C.
50	1/4–20 X 2" FNTCS 300 SERIES S.S.	WITHIN 9" FROM ENDS & 9" MAX. O.C.
51	NO. 10 X 3/8" FHTFS 300 SERIES S.S.	1 PER JOINT PLUG
52	10–16 X 1 1/4" FHSDS 300 SERIES S.S.	1 PER VERTICAL MULLION SPLICE SLEEVE
53	NO. 12 X 1" PHTFS 300 SERIES S.S.	1 PER VERTICAL MULLION SPLICE SLEEVE
54	NO. 12 X 1" PHTFS 300 SERIES S.S.	2 ABOVE SPLICE; WITHIN 3" OF END 3" O.C.
55	1/4–20 X 2" FNTCS 300 SERIES S.S.	WITHIN 9" FROM ENDS & 24" MAX. O.C.
56	NO. 12 X 1 7/8" PHTFS 300 SERIES S.S.	2 PER SHEAR BLOCK
57	NO. 12 X 7/8" FHTFS 300 SERIES S.S.	2 PER SHEAR BLOCK
58	NO. 12 X 7/16" PHTFS 300 SERIES S.S.	2 PER SHEAR BLOCK
59	NO. 12 X 1/2" FHTFS 300 SERIES S.S.	2 PER SHEAR BLOCK
60	NO. 12 X 1/2" FHTFS 300 SERIES S.S.	4 PER SHEAR BLOCK
61	NO. 10 X 5/8" FHTF 300 SERIES S.S.	6 PER PLATE



(23) F–PERIMETER ANCHOR



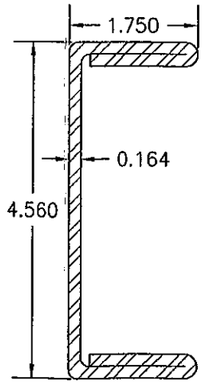
(24) ANCHOR PLATE
3/16" THICK



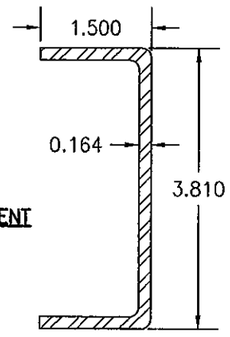
(25) ALTERNATE HORIZONTAL INTERMEDIATE MEMBER COVER

LENGTH = 2.500"
(26) COVER SPLICE

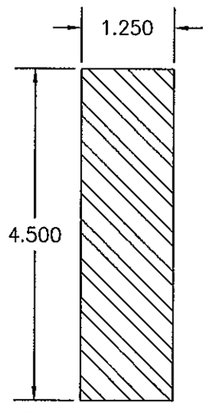
(40) EXTERIOR GLAZING FIXED GASKET



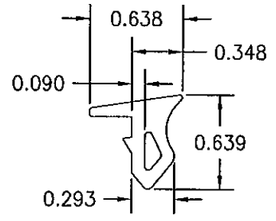
(29) MULLION REINFORCEMENT
I = 5.667 IN^4
S = 2.485 IN^3



(30) MULLION REINFORCEMENT
I = 2.208 IN^4
S = 1.159 IN^3



(31) CORNER MULLION REINFORCEMENT
I = 9.492 IN^4
S = 4.219 IN^3



(41) INTERIOR GLAZING FIXED GASKET

PRODUCT REVISED
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By
Miami Dade Product Control

WARREN W. SCHAEFER ★ LICENSE ★ No. 44135 ★ STATE OF FLORIDA ★ PROFESSIONAL ENGINEER

JUN 19 2012

NO.	REVISION DESCRIPTION	BY	DATE

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PLOT: 1=2 | DATE: 06/05/12

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SHEET NO. 16 OF 16